

J. O. 1536 *161 3-12-15

Building *8, looking North.

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NEW INSTITUTE BUILDING NO. 8, LOOKING NORTH
Photograph taken March 12, 1915

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BUILDING OF WALKER MEMORIAL URGED

Lively discussion of the whole matter at the last Council meeting—Question of financing principal topic

The last meeting of the Alumni Council, held March 29, was again devoted to the matter of facilities for students on the new site, and the earnestness with which the matter was discussed was good evidence of the intention of the Alumni Council to do its part in furthering the Walker Memorial and the dormitories.

Jasper Whiting, '89, the salad orator, described in an amusing way how he negotiated with a Buddhist priest for a rare image of Buddha by virtue of his knowledge of the theory of probabilities.

Field Manager Litchfield, '85, reported that A. F. Bemis, '93, had visited the Technology associations at Indianapolis and St. Louis; Professor Gill, '84, had been the guest of the Detroit association; Messrs. Fisher, '05, and Litchfield, '85, had met with the Manchester club, and Henry A. Morss, '93, had addressed the Milwaukee club. He also spoke of the new enterprise of the Technology Club of Albany in giving a course of lectures in coöperation with the State Board of Education. Future meetings are to be held in Detroit, where Dr. MacLaurin will be the guest April 17. Messrs. Stevens, '68, Horn, '88, and Litchfield, '85, will visit Springfield and Hartford, and Professor Barton, '80, is to meet with the Technology Club of Hawaii; Howes, '03, is to speak to the Tech men at Youngstown, and at Syracuse later on in the season, and Emerson, '04, is to address Tech men at Atlanta, New Orleans, Houston, San Antonio, Dallas and Los Angeles on his way to the Coast; and on his return trip he will go north, visiting the various associations. Announcement was made of the special monthly dinners and registration arrangements of the Technology Club of

Northern California at San Francisco and of the hospitality committee at Seattle.

George B. Glidden, '93, made a report for the committee on assemblies saying that the committee had not planned to have any special celebration on the occasion of Tech night at the Pops this year. Some of the members expressed themselves as preferring a stuntless celebration; others thought that as this was the occasion when the graduates were welcomed to the Alumni Association, something should be made of it each year. By vote of the Council it was decided to have a special program.

The real business of the meeting was then brought forth by President Horn, who introduced Professor Tyler, chairman of the Walker Memorial Committee, with the request that he give a connected account of the Walker Memorial from the very beginning.

HISTORY OF THE WALKER MEMORIAL

Professor Tyler said that General Walker died in January, 1897. During the year the question of a suitable memorial to express the high regard and affection in which he was held by alumni was discussed at a meeting of the Class Secretaries Association, then recently formed, and this led to the appointment of a preliminary committee which reported at the next annual meeting of the Alumni Association, recommending that the alumni undertake to raise a fund of \$100,000 for a Walker Memorial Gymnasium. The following votes of the Alumni Association and the Corporation give the status of the Walker Memorial Committee:

December 30, 1899. *Voted*, "That the Executive Committee of the Alumni Association appoint a Walker Memorial Committee of nine members, which shall undertake by a subscription, the collection of a Walker Memorial Gymnasium Fund, to be applied by future agreement with the Corporation of the Massachusetts Institute of Technology toward the cost of erecting and equipping a gymnasium as soon as may, in the judgment of the Corporation, be practicable."

December 29, 1899. *Voted*, That the Walker Memorial Gymnasium Committee be authorized to confer with the Corporation of the Institute, in behalf of the association, in regard to the purchase of suitable land for the gymnasium.

Voted, That it is the sense of the association that the Walker Memorial Gymnasium should include, if possible, provision for other social objects, with a view to the promotion among the students generally, of a closer attachment for each other and for the Institute.

VOTES OF THE CORPORATION

December 26, 1900. *Resolved*, That the President is authorized to state to the alumni that the Executive Committee will recommend that the Corporation set aside 10,000 square feet of the land on Trinity Place, corner of Stanhope street, or, if preferred, 48,000 feet on Garrison street, for a site for the Walker Memorial Building, on condition that \$100,000 is subscribed by July 1, 1901, for the erection of the building. The Executive Committee will also provide a suitable man to conduct a department of physical culture.

Resolved, That the Faculty of the Institute be requested to confer with representatives of the alumni and to submit to the Executive Committee a plan for the Walker Memorial building and for its use.

VOTES OF THE ALUMNI ASSOCIATION

December 26, 1900. *Voted*, That the Executive Committee be requested to tender the thanks of the association to the Corporation and Faculty of the Institute, for the provisional assignment of land and assurance of coöperation.

Voted, That the Walker Memorial Committee be authorized to represent the Alumni Association in conference with the Faculty as to the plan for the Walker Memorial Building and for its use, in pursuance of the vote of the Corporation.

Voted, That the Executive Committee be requested to authorize the transfer of funds collected by the Walker Memorial Committee to the Treasurer of the Institute, to be applied towards the erection of the Walker Memorial Gymnasium, whenever the plans of the Corporation and Faculty for the character and organization of the same shall have been accepted by the Walker Memorial Committee.

"I think it very doubtful" said Dr. Tyler, "if any member of the committee dared to be confident of the success of this ambitious undertaking, as the largest efforts the alumni had made, up to that time, had been the raising of the Rogers' Scholarship Fund of \$5,000 (subsequently increased to \$10,000). The first appeal for funds was issued in May, 1899. At the alumni meeting in December the committee presented its first report, announcing 230 subscriptions, aggregating \$21,000. In view of increasing interest in social activities and welfare of students—an interest which President Pritchett, who had recently come to the Institute, strongly represented—it was voted at this time to be the sense of the association that the Walker Memorial Gymnasium should include, if possible, provision for other social objects, with a view to the promotion among the students generally of a closer attachment for each other and for the Institute. So far as I am aware, all subsequent subscriptions to the first \$21,000, and many of the instalments of that amount have been paid on this basis. The Corporation had voted to make provision for the conducting of a department of physical culture in connection with the proposed gymnasium.

"During the following year President Pritchett, in meeting alumni, presented the completion of the subscription as an urgent need, so that on June 4, 1901, a heavy broadside of telegrams and urgent messages brought us to \$93,000. The class of 1901, at its final meeting, subscribed \$5,000, and before the day was over the balance was secured.

"In November, 1901, a circular was issued by Colonel Livermore, Mr. Nathaniel Thayer and Dr. Pritchett—as a committee of the Corporation—inviting further contributions from outside sources towards a second hundred thousand for the completion of the Memorial for the threefold purpose of a social center for the student life, a place for physical instruction, and a gymnasium. The circular continued, after speaking of the need of physical education, 'The building is to serve, however, a still more important purpose, namely, that of a social center for student life and a place where students may come in contact with each other and with the alumni and members of the instructing staff. No other agency which can be set in motion will contribute so much towards the cultivation of students as men. . . . It is most desirable that this effort of the alumni be met half way by the friends of the Institute and the furtherance of this action be not long delayed. No other help could be offered to the Institute at this time which would contribute to the needs of the student life in so large a measure, or which would be so thoroughly appreciated by the alumni.'

"In December, 1901, there were reported 1809 subscriptions, amounting to more than \$101,000, and \$35,000 pledged towards the supplementary fund.

"In 1902, 10,000 square feet of land at the corner of Stanhope street and Trinity place was assigned to the Walker Memorial and plans were prepared by Professor E. B. Homer, of the architectural department, for a building of five floors. Soon after however, considerable uncertainty developed in regard to the future location of the Institute, and these plans were fortunately not carried out.

"The question of the future location remained open until the purchase of the Esplanade site, two years ago, and during all this interval it seemed impossible for anything whatever to be done in regard to the Walker Memorial, successive reports of the committee being confined mainly to statements of accumulated interest.

"President Maclaurin was keenly interested in the possibilities of the memorial, and in March, 1912, at the request of the Walker Memorial Committee, he appointed a special committee of five, including two members of the original Walker Memorial Committee, to work out a program of what the Walker Memorial ought to be. This committee, I may be pardoned for saying, did a very substantial amount of work, holding many meetings and conferences with different groups of people, alumni, instructing staff and undergraduates. Its members visited student unions at other institutions, and employed a traveling delegate. The results of the labors of this committee were presented to the Alumni Council in the spring of 1913, and published in the *TECHNOLOGY REVIEW* for June following.

"The essential features of the comprehensive recommendations of this committee may be summarized as follows:

"The Walker Memorial should be convenient of access, architecturally dignified, and located with reference to permanent use.

"It should be large enough to provide for a student body of 2,000, but not so large as to lose the attractiveness of intimacy.

"It should be primarily a social club for undergraduates, with incidental provision for Faculty and alumni, whose contact with the undergraduates would be valuable.

"It should not include the general dining hall or the general gymnasium, because these features, if adequately provided for, would interfere with the unity of purpose of the memorial and with its proper proportions. There should, however, be such a restaurant provision and such gymnasium facilities as would naturally go with a student club house—what one might call a gymnasium for recreation as distinguished from a gymnasium for physical culture and athletic organizations. It should also contain offices for numerous undergraduate activities, and a hall for dramatics and social gatherings.

"Membership should be compulsory, and the memorial, as a whole, approximately self-supporting."

Professor Tyler also spoke of the Cilley bequest which came to the Institute in 1905, yielding \$60,000 to the Institute, the income of which is to be used for furnishings and works of art for the Walker Memorial. The speaker went on to say that the matter of the Walker Memorial had remained dormant for ten years.

Since making the report in 1913, the committee had looked forward to its erection just as soon as land across the river was occupied. The memorial should be begun in ample time for occupancy in 1916. This memorial, undertaken in 1899, has been so much delayed as to have lost much of its original significance. There were 2,500 subscribers to the fund. Since that time 3,000 men have been graduated.

Professor Tyler said that he had certain ideas which he hoped would commend themselves to the Council. He would present them not as formal recommendations, but simply for the consideration of the audience. They would, he was sure, be approved by the Walker Memorial Committee. First, we should know the funds available; second, the size and cost of the buildings; third, the place to be allotted; and fourth, whether or not the Walker Memorial is to include the gymnasium and lunch room.

In speaking of the funds actually available to the committee, he said that on January 1, the Walker Memorial Fund amounted to \$151,000. The interest for this year would increase it by \$6,000. There were unpaid subscriptions from alumni amounting to fifteen or twenty thousand dollars, some of which would be collectable when the plans were ready. He had no information as to the subscriptions amounting to \$35,000, which were secured by the Corporation. Dr. Tyler thought there would be no serious difficulty in making the total fund \$200,000 with acceptable plans in hand. In reply to a question he said the Walker Memorial was to be substantially self-supporting.

ARCHITECT'S PLANS SHOWN

H. E. Kebbon, '12, was then called upon and spoke of the plans made by the architect for the proposed dormitories. Slides showing the dormitories of other institutions were presented, also the suggested room plans made by the Bemis committee in 1913. He then showed a plan indicating a new layout of the dormitories and gymnasium, which, it was explained, was merely a tentative one for purposes of discussion. The Walker Memorial is kept on the main axis of the student group of buildings, and the dormitories have been restudied in order to obtain courts opening toward the river as well as interior quadrangles. These were shown on each side of the Walker Memorial, and were connected with that building and each other by colonnades. The dormitories in front flank-

ing the Walker Memorial, will be built first so that the group along the water front will be complete from one end of the site to the other. The speaker then exhibited a slide showing a suggested dormitory unit with fresh air sleeping rooms, dressing rooms and studies; both suites and single rooms were provided. This unit is intended to accommodate 57 men, and its cost would be \$2,160 per student, allowing a building cost of 35 cents per cubic foot. It was decided, however, that 80 students must be accommodated in each of these units instead of 57, in order to come within the maximum to be expended per student. This, the speaker thought could be done by rearranging the interior.

Architect Bosworth, said that they had left as much space about the student buildings as possible; that is to say, the maximum amount of ground for the size of the dormitories. The drawings which he showed as lantern slides were merely tentative studies, but indicated some of the things that it is desired to accomplish. The student buildings should bear a family resemblance to the main educational group, and the Walker Memorial should dominate the student buildings. He suggested using the roofs for recreation and even for sleeping purposes. Pergolas were suggested on the roofs of the buildings, as they harmonize with the classical style of the architecture, and also soften the otherwise severe lines. Along the front of the memorial and connecting it with the student group would be a little colonnade. His conception of the Walker Memorial would carry a monumental note over to the student side from the larger educational group. The plan for the dormitories shown gave a very high average of sunshine for the whole group.

DISCUSSION OF THE SITUATION

The discussion which followed was marked by absolute freedom and perfect frankness.

James W. Rollins, '78, said that the report of the Walker Memorial Committee recommended that more money be secured from the alumni. He had in his hand literature issued in connection with the raising of the Alumni Fund in 1912. He referred to a paragraph from the circular letter signed by President Maclaurin and dated March 20, 1912, as follows: "The Walker Memorial has commended itself to the generosity of the alumni for years, and a considerable sum has been subscribed for its erection. Much

more, however, is needed to make this building a worthy memorial of the great President and the great humanist in whose honor it is to be built. It should comprise a complete equipment for social activities amongst our students, and it should contain, or be closely associated with, a gymnasium that is the best that can be devised for our special needs." The Alumni Association had appointed a committee to raise what is known as the Alumni Fund. On April 9, 1912, this committee sent out a circular asking for subscriptions, and on the basis of this appeal about \$500,000 was pledged. Mr. Rollins quoted a paragraph from this circular as follows: "It therefore remains for the alumni to provide for the equipment of the buildings, for laying out the grounds, for dormitories, for adequate facilities for athletics and for an enlarged Walker Memorial, including the gymnasium and a complete social center. Such a memorial will cost much more than the \$133,000 now on hand for this purpose." The circular was signed by the Fund Committee, consisting of Everett Morss, '85, chairman, James W. Rollins, '78, Edwin S. Webster, '88, Arthur T. Bradlee, '88, Frederic H. Fay, '93, and I. W. Litchfield, '85, secretary. This appeal was duly authorized, and definitely stated that part of the Fund was to be used for the Walker Memorial. The speaker said that he thought that as a matter of good faith, the Corporation should devote a fair proportion of the fund for this building. If this is not done he believed that any further appeal to the alumni for money would meet with but slight response. As a member of the Alumni Fund committee he believed that some part of the fund should be used for building the Walker Memorial.

Everett Morss, '85, stated that the circular referred to what the money was to be used for, but did not state how much was needed for the several desirable things mentioned. The list started out with the equipment and the laying out of the grounds, the dormitories coming next. He said that he would stand by the circular, but we couldn't do it all for a ten dollar bill. He thought that we had collected about \$250,000 so far on Alumni Fund pledges. If it costs \$500,000 for equipment and \$1,500 for laying out the grounds, the Alumni Fund money wouldn't go very far. He said that a number of persons who read the Alumni Fund circular referred to it as a "hazy dream." Even now it was not clear in his mind exactly what we ought to do. He believed that when we had something more than a hazy dream, we could go to the alumni

and get further support. Today we have nothing more definite to offer. He thought this was a bad time to bring the matter up in view of the disturbances here and abroad.

Professor W. K. Lewis, '05, asked Dr. Tyler to give the features of the Walker Memorial which he had mentioned in his report. In response to this question Dr. Tyler gave the following figures:

The figures indicate square feet. Living room, 3,500 (about half of it two stories); library, reading and writing room, 3,000; faculty and alumni, 3,000; billiards, games, etc., 3,500; grill and dining rooms, 2,800; kitchen, pantry, etc., 1,500; gymnasium, 3,000; bowling, 3,100; shooting galleries, 800; lavatory, 700; auditorium, 3,500 (two stories); student offices, 5,800; study and committee rooms, 2,000; sleeping rooms, 1,800; miscellaneous, 1,500. Dr. Tyler said that the committee would be glad to consider increasing the gymnasium from 3,000 to 5,000 square feet, postponing the building of the auditorium, and questioning the space given to billiards and games, bowling, shooting galleries and sleeping rooms.

Dr. Lewis made a motion that the recommendations of Dr. Tyler be accepted as the sense of the Council. This, however, was not seconded.

James P. Munroe, '82, said that Mr. Morss had referred to the matter as a "hazy dream." This undoubtedly was true, but it cannot be much longer. We have but about a year and a half to work in. The essentials in the order of their importance are: Lunch room, gymnasium, dormitories, Walker Memorial. The Alumni Association must quickly decide what part it is going to take in erecting these buildings. In his opinion, the Corporation was bound to provide the gymnasium and lunch room. Where they are to get the money to do it he did not know, but it must be done. As chairman of the committee on dormitories, he hoped that at the next meeting of the Council a plan would be submitted that would relieve the alumni of any burden from this quarter. There, therefore, remained for us to put our energies into planning and completing the Walker Memorial. The \$160,000 or \$170,000 on hand was not at all adequate. He believed with Mr. Rollins that the Corporation should appropriate a definite sum from the Alumni Fund for this purpose. He thought that we might then go to the alumni for more money to properly complete the memorial.

Jasper Whiting, '89, stated that in his mind the Walker Mem-

orial was the most important thing. The gymnasium and lunch room should be provided for by the Corporation. The memorial should be worthy of General Walker, whose name it is to bear. He had been interested in the pictures of the suggested student buildings presented by Mr. Bosworth. He realized that these plans were tentative, perhaps merely suggestions, but he wanted to say as a matter of observation, rather than criticism, that first, the group as viewed from the river, appeared inharmonious with two dormitories on one side and the Walker Memorial and one dormitory on the other; second, he thought that the dressing rooms shown in the plans were not necessary. He believed that the students would prefer to dress in the study rather than in a small closet-like dressing room; third, he did not like the roof gardens suggested. There would be only two or three weeks at the most during the school year when they could be used as such by the students; fourth, the elevation of the Walker Memorial did not appeal to him. He hoped that when the plans were accepted, there would be a suggestion of Rogers Building in the Walker Memorial—something that stands for the old Technology and that would strike a responsive chord in the hearts of alumni.

Dr. Arthur A. Noyes, '86, arose to corroborate the remarks of the previous speakers. He felt strongly that without regard to any obligation that might be implied in the Fund circulars, the Institute would make a great tactical mistake if it did not apportion some of the Alumni Fund to the Walker Memorial. The alumni he believed were very much interested in the student buildings. However pressing the money might be needed for grounds, equipment, etc., it would be unwise to withhold a portion of it from the Walker Memorial. He thought that there should be a large, separate gymnasium for these reasons: In the first place a gymnasium of this character was not germane to the purposes of the Walker Memorial; in the second place, it would be more expensive to build it into the Walker Memorial than to erect a separate building. In his opinion the same arguments applied to the lunch room.

President Horn arose to explain that after the last Council meeting he had asked President Maclaurin for some sketches or yard plans which would show what might be done on the site. They might be right or they might be wrong, but he urged the President to have something that would form a nucleus for discus-

sion. He rather felt that perhaps he had obtained the plans and sketches shown tonight under false pretenses. He thought that after full discussion, they might find some way of getting more money for the purposes in mind. He asked whether the Council thought it was wise to take a vote now that might commit the association or whether it was not better to wait until the next meeting. He realized that the time was getting pretty short, but he felt that it would pay to get a little further light on the subject. "Hazy dreams" he said were pretty good dreams when they materialized into a half million dollars.

Ingersoll Bowditch, '00, inquired who was to have the final decision in regard to the building and equipment of the Walker Memorial. Would it be up to the Corporation, the Alumni Association or the Walker Memorial Committee?

Dr. Tyler, in responding, said that it might be presumptuous of him to answer this question definitely, but the Fund was still subject to the implied agreement between the Corporation and the Alumni Association, the association being represented by the Walker Memorial Committee. It might be that the matter could better be taken care of by the Council than by the committee. In referring to Mr. Horn's query he said that he hoped we might vote tonight on some of the propositions, if not all. He had taken up with the President the question as to whether sketches incorporating the alternatives, that is, one combining the lunch room and gymnasium and another separating them might not be made. The President said that he was in sympathy with the idea but he thought it was simpler from the architectural side to work out the problem without reference to the alternative plan. Dr. Tyler said he hoped that the committee might have an opportunity to confer with Mr. Bosworth with reference to these plans. The speaker said that he had always expected that the Walker Memorial would receive some part of the Alumni Fund.

Charles A. Stone, '88, agreed that it was wiser to separate the gymnasium and lunch room from the Walker Memorial. The discussion he had heard during the evening had put the whole matter in a more tangible shape than ever before. He felt that we were coming near to a solution of the matter. There is really no difference between the funds raised by the Alumni Association and those in the strong box of the Corporation. He said that these or any other funds that had been raised or might be raised were

all to be devoted to the best development of the Institute. The authorities had strained every point to provide for the general group. There was a general feeling that the Alumni Fund was available for this work. A portion of the Alumni Fund could easily be applied to the Walker Memorial, but, he said, in so doing we would simply be "robbing Peter to pay Paul." He thought we ought to get definite figures and the exact arrangement of buildings and take a sufficient time to make up our estimate. It was wiser to defer taking action until we knew what the plans were going to be.

Everett Morss said that he had spoken of the matter of the plans for the student buildings as a "hazy dream." He did not mean to appear to oppose Mr. Rollins; he simply was giving the other side of the shield. He did not think it was wise to do anything definite tonight. He hadn't felt sure as to the desirability or undesirability of having the lunch room a part of the Walker Memorial. Since Mr. Munroe's intimation that his committee had a plan for underwriting the dormitories, it threw more light on the matter. He felt, however, that in the light of all the necessities, it was not wise to say tonight that we would do this or do that.

Dr. Lewis withdrew his motion, and Dr. Tyler offered as a substitute motion:

Resolved, That it is the sense of the Council that it is most important that the Walker Memorial be ready for occupancy in 1916.

This motion was unanimously carried. Dr. Tyler then put a second motion as follows:

Voted, That it is the sense of the Council that it is desirable to have provisional plans and estimates prepared omitting the lunch room and the general gymnasium for required physical training, but retaining substantial gymnasium features for other purposes.

Mr. Morss stated that he thought the original plan of the Walker Memorial drawn by Professor Homer, included a large gymnasium for instruction as well as a smaller one.

C. M. Baker, '78, asked if the ideas in regard to the gymnasiums hadn't changed much since that time.

Dr. Rockwell, '96, a member of the advisory council on athletics, said that physical directors have found that it is better to separate the gymnasium from the student houses. Furthermore, in connection with the Walker Memorial, the building would be immensely large. For these reasons the committee on the Walker

Memorial recommended a small gymnasium in the Walker Memorial and a larger gymnasium separate from it.

Dean Burton, who is in charge of the department of physical training said that the gymnasium suggested in combination with the Walker Memorial was entirely unfitted for the purpose of the Institute. The present gymnasium has about a thousand square feet more than the plan presented tonight. Furthermore, it was not satisfactory to have the building so far away from the athletic field. In his opinion it would be much better to erect a temporary building, even if it contained but meagre equipment. We have compulsory gymnasium exercise at the Institute for 400 students. These fill our present gymnasium completely. Other students who wish to take exercise are forced to go to the Young Men's Christian Union or to the Y. M. C. A. Fencing, boxing, basket ball, etc., are unable to use the gymnasium because there is no room for them there. We need such a gymnasium as was proposed by the alumni committee. There is a real demand for hand ball, rackets, etc., by men who have but little time to exercise. In the original Walker Memorial, prepared by Professor Homer, we did not have compulsory work. He believed that the Walker Memorial was the most essential feature of the student group. If we start the Walker Memorial the other buildings will follow.

Mr. Rollins thought that the thing to do was for the Corporation to appoint a committee to consult with the Alumni Committee. Such a conference would more readily decide the question at issue. It may be wise to use the memorial for other purposes than as a students' club only, or it may not be. It would be quite easy for the alumni to spend a lot of time and then evolve a plan that would not be satisfactory to the Corporation. His suggestion was that the plans be speedily made and agreed upon, and a proper building be built for the Walker Memorial.

Dr. Tyler's motion was then put and unanimously carried.

Mr. Whiting asked if there had been any estimates made for the temporary lunch room or gymnasium.

President Horn said that he could not make a definite answer, but he had heard that it would cost something like \$10,000. President Horn then asked if it was the sense of the meeting that the next Council meeting should also be devoted to this same subject. The Council agreed that this was the proper course to pursue, and the meeting adjourned.

DEATH OF ROSS TURNER

His passing a great loss to the Institute where he had been a teacher for thirty years

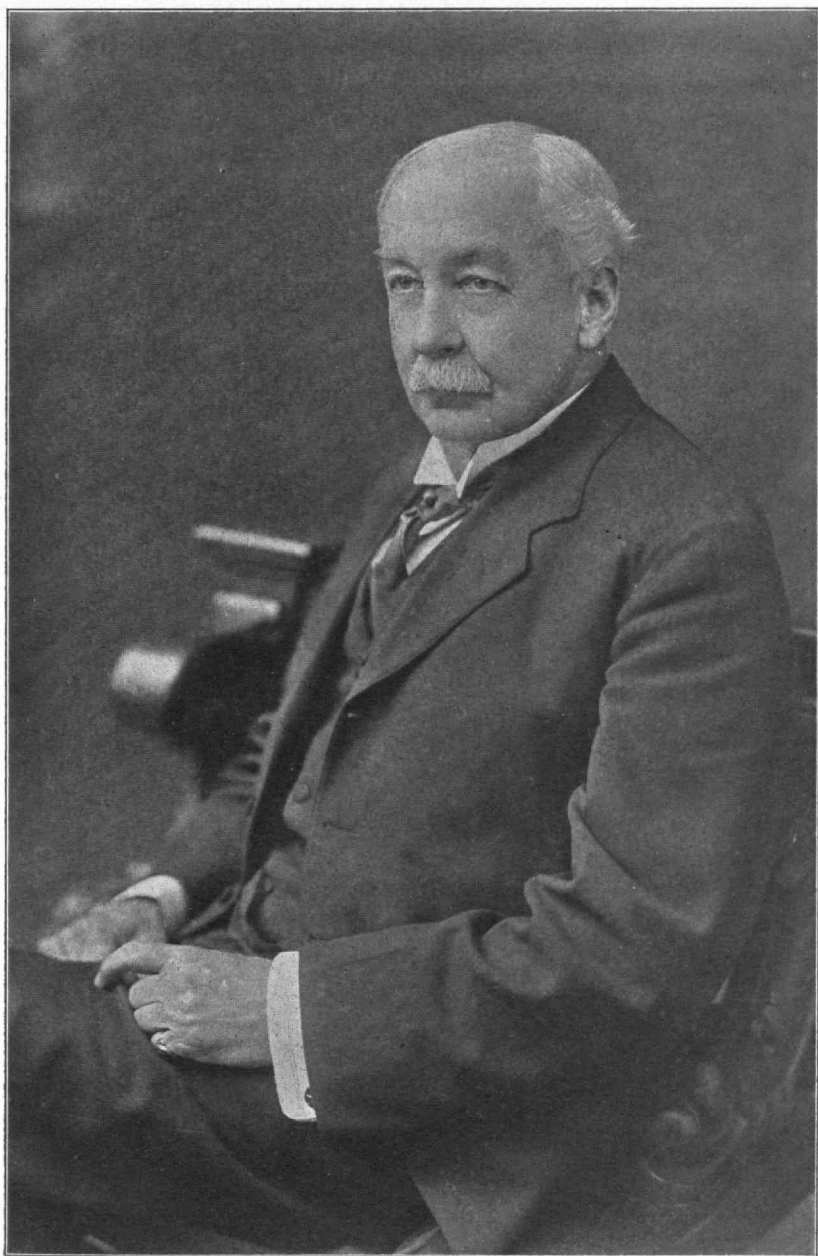
Ross Sterling Turner was born in Westport, New York, on June 29, 1847, and was educated at Williamsport, Pa. His first artistic work was done as a draughtsman in the Patent Office, Washington, and it is difficult to imagine that one with so delicate a touch and so fine a sense of color and of freedom of brush stroke, should have been forced to do the mechanical work of a federal office.

The perfunctory quality of this work must have been irksome to him, for in 1876 he went to Europe and began to study in Munich with a number of Americans who were in Piloty's studio. Here he made the acquaintance of a group of artists who were his life-long friends—Duveneck, Decamp, Rolshoven, Wendel, Mills and Grover. These men rebelled against the academic dryness of the work about them, and went to Italy, at first to Florence, where for some years they remained, and later appeared in Rome and then in Venice. In Venice, Turner found the vibrating gamut of color so sympathetic to him, and which has always been distinctive of his work. He returned to America in 1882, and married Miss Louise Blaney in 1885. He soon began exhibiting a series of brilliant water colors of which the quality was entirely individual. His "Golden Galleons" were an apotheosis of the days of Drake and the Armada, and his landscapes and gardens had in them the joy of living. Always throughout his work was the keenest delight in the happiest phases of nature. His teaching imparted enthusiasm to his pupils, whether in his own classes or at the Normal Art School or in the Institute of Technology.

Sometimes there are allowed to be among us rare beings who never grow old, who find, as the years crowd their senses with perpetual changes, a new delight in each fresh phase of life.

To them the past is a memory full of felicitous happenings, and the future an opportunity for very many more.

They go through life hand in hand with that happy fortune which leads them in pleasant places, no matter what those places may seem to the less favored children of men. They are not



ROSS TURNER

troubled with an analytical wisdom which insists upon the comparative relations of things. The birds sing to them and the flowers bloom and they can make a garden from our deserts, dry as dust with sententious knowledge. They live oblivious of the fact that they refresh the world, and therefore like the Lama in *Kim* have "acquired merit."

To this band of happy people belonged Ross Sterling Turner admirable colorist, charming companion, simple as a child with the broader wisdom that declines to see evil.

At the Institute his work was far from being merely that of his teaching of water-color rendering, it was the permeation of the work with his sunny and sympathetic nature. Revelling in the beauties of color, he found them everywhere. When he was not planting flowers, and they grew for him as they do for few, he was painting them, and he infused into the monotones of architectural renderings a vibrant life which was often needed.

The blue of the Southern seas was a delight to him, and it was fitting that his last days should have been spent with those seas surrounding him.

It is unnecessary to eulogize his work as a water colorist of eminence. It is well known as sparkling with light and singing with color and having the direct and simple expression which was so characteristic of the man.

C. HOWARD WALKER.

Honorary Degrees Conferred

On the occasion of the dedication of the new thirty-five thousand dollar building, which will become the permanent home of the Mellon Institute of Industrial Research of the University of Pittsburgh, February 26, honorary degrees were conferred upon Professor Arthur Amos Noyes, '86, professor of theoretical chemistry and director of the research laboratory of physical chemistry at the Institute, who received the degree of doctor of laws; upon Professor William Hultz Walker, professor of chemical engineering in charge of the course in chemical engineering and director of the research laboratory of applied chemistry, who received the degree of doctor of engineering, and upon Henry Marion Howe, '71, former professor of metallurgy at Columbia University, who received the degree of doctor of science.

PROFESSOR RICHARDS RECEIVES A MEDAL

Elaborate dinner setting for the presentation at the New York Chemists Club—Many distinguished engineers present

Professor Robert Hallowell Richards, '68, was given a complimentary dinner March 18 by the Mining and Metallurgical Society of America, the feature of which was the presentation of the gold medal of the society by the president, William R. Ingalls, '86, a former student under Professor Richards. Professor H. O. Hoffman, acting head of the department on mining engineering and metallurgy and Professor W. Lindgren, head of the department of geology, accompanied Professor Richards from Boston, and were guests at the dinner.

The banquet was set in the spacious hall of the Chemists Club, East 41st street, with a distinguished gathering of representative metallurgists from various parts of the country. The society is a special one demanding as it does technical skill and reputation and is comparatively small in membership. The medal is given annually, subject to a selection by the council of a subject, the voting of the members in nominations and a selection by the council from the candidates. The subject the present year was "Advancement in the Art of Ore-Dressing," and the award was unanimously made to Professor Richards, who is acknowledged authority on this subject, not for one discovery that he has made or any one machine that he has invented, but because he has been for many years furnishing to the profession the ideas developed by him as they pertain to the separation of minerals.

In his presentation address Mr. Ingalls referred to the time when he was a student under Professor Richards. The latter was a pioneer in this field of instruction and the methods that he established at Technology were new and fundamental and attracted thither many teachers who sought to profit and to pattern by them. As early as 1883, Professor Richards invented an important apparatus, a separator, which was used in Lake Superior mills. Technology instruction has much of its value from the machines of practical size in the mining laboratory, which made its graduates practical men. The practices of the mines at the time were crude,

some of them, the speaker did not question, being unchanged since the time of Agricola. Fine grinding and slime-washing were only crude ideas. With reference to the treatise on Ore Dressing the president finds that there was nothing in English before it, and nothing since. "The latter does not surprise me," he said, "for he left nothing for any one else to say soon."

Throughout his long career in his chosen art, Professor Richards has been of the most important class of helpers. He has been an investigator of principles and there is not a mill-hand who reads English, who is not indebted to him. His later work of "hindered settling" is an example of the thought of a master at the zenith of his powers.

"It is but a small tribute that the society pays to you, Professor Richards," said Professor Ingalls in presenting the medal, "and it does not give it in payment for the debt under which you have placed its members, but it simply presents it in respectful recognition of the fact that the debt exists and never will be paid."

The other speakers of the occasion besides Professor Richards himself were, W. L. Saunders, president of the American Institute of Mining Engineers; Charles W. Goodale, '75, general manager of the Boston and Montana Department of the Anaconda Copper Mine; F. A. Ladbury, president of the American Electro-Chemical Society; David H. Browne, metallurgical expert of the International Nickel Company.

This toast of the members of the Mining and Metallurgical Society of America to Robert H. Richards, put into words by Berton Braley, was read by the author:

Here's to you, Bobby, O sage metallurgical,
 You who have taught us much wisdom of yore,
 Doctor of Dressing—not salad or surgical—
 But of the dressing of every old ore.
 Long may you flourish in all your variety,
 You whom we're proud to be honoring now!
 Robert H. Richards, this mining society
 Slips you the laurel to wear on your brow!

Tickle the harp with pulsations harmonious,
 Jig-time pulsations, for jigs are his forte;
 Lift up your voices in noises euphonious,
 Praising the man we call "Bobby" for short.

Teacher and author of top-notch ability,
 Chief patriarch of the ore-working clan,
 Mighty inventor of great versatility,
 Thinker, and dreamer and Regular Man!

Gladly we boost you in accents vociferous,
 Robert H. Richards, for clearly we know
 You are of ore which is purely auriferous,
 Tests by the hundreds have proven you so.
 Up with the glasses, we drink to you merrily;
 Long may you wave!—like the Red, White and Blue;
 There's a warm spot in our hearts for you, verily,
 Bobby, O Bobby—here's looking at you!

Half Century of Instruction

The fiftieth birthday of the Institute, which occurred February 20, was observed in Boston without formal exercises, save the announcement on a blackboard in the corridor of Rogers Building and a floral offering in front of the bas-relief of President Rogers and a display of flags on all the buildings. The event was one of the features of the dinner at the grand banquet at Pittsburgh, where Dr. Maclaurin alluded to the beginnings of the Institute and some of the accomplishments of fifty years of service.

In this connection the following extract from the "Life and Letters of William Barton Rogers" is interesting:—

"While awaiting the completion of the new building upon the Back Bay, it was decided to make a beginning of the School of Industrial Science in the rooms already occupied by the Society of Arts. These rooms, as has been said, were in the Mercantile Building, No. 16 Summer street, on the north side between Hawley and Arch streets. The announcement of this 'Preliminary Course of Instruction in the School of Industrial Science of the Massachusetts Institute of Technology,' included the following statements:

"The building intended for the use of the School of Industrial Science, now in process of erection, will, it is expected, be in readiness for occupation next winter, when the various departments of the school will be permanently organized, and put in operation.

"In the meantime, to facilitate the progress of students who may wish to qualify themselves more completely for entering on

the regular courses of study and practice, and to save the time of others more proficient in elementary studies, who may desire to enter, in advance, the second year's course, it is proposed to open some of the classes in February, in the rooms of the Institute, in Summer street."

The preliminary course here announced opened on February 20, 1865, in the rooms of the Institute, No. 1 Mercantile Building. Professor Rogers' entry in his diary on this date is: "ORGANIZED THE SCHOOL! FIFTEEN STUDENTS ENTERED. MAY NOT THIS PROVE A MEMORABLE DAY!"

Notice to Panama-Pacific Visitors

The Technology Association of Northern California, of which Mr. George E. Atkins, '04 (Willis Polk Company, Hobart Building, San Francisco), is secretary, announces that it has made arrangements for regular monthly dinners to be held at the University of California Club, 221 Stockton street, San Francisco, on the second Tuesday of every month during the Exposition. These dates will be May 11, June 8, July 13, August 10, September 14. The association extends a most cordial invitation to all Technology men visiting San Francisco, to attend these dinners.

On the first trip to the Exposition be sure and register your name at the Palace of Education, Massachusetts booth, and make it a point to attend the monthly dinners while you are there. There will undoubtedly be several hundred Institute men at the Exposition this summer, and the enterprise of the Association of Northern California makes it possible for them to get together and thus make their stay much more enjoyable. Prospective visitors should make a memorandum of these dates and addresses.

Please note that if you pass through Seattle, the Technology Club of Puget Sound will be made very happy if you drop in at Technology headquarters at the Anderson Supply Company, 111 Cherry street, and register. You will find here one of the hospitality committee, of which Leonard T. Bushnell, '05, is chairman (Seattle National Bank Building). The other members are M. P. Anderson, '10, Anderson Supply Company, and C. N. Lewis, '99, 317 Pacific Block. The location of headquarters is a central one, as it is in the district of the railway and steamship

offices, and is easy of access. You will find a hearty welcome awaiting you in Seattle.

Another welcoming hand is extended to you from Portland, Ore., where the Tech men have arranged to meet daily at the Hazelwood Luncheon. If you will drop in there any noon when you are in town, you will find congenial companionship.

You cannot afford to go through these different coast cities without making yourself known.

A Professor under Surveillance

Professor E. E. Bugbee, '00, of the mining department of the Institute, and two mining students, who were in Nova Scotia examining a mine, were under surveillance by the military authorities. Without their knowledge a detail was placed to quietly watch them, and the fortress intelligence officer wired the Institute "Are one of your professors and two students at present in Nova Scotia assaying gold quartz?" The Institute authorities immediately vouched for Mr. Bugbee and his students. The Canadian officers caused them no annoyance, but made a number of other inquiries to be absolutely sure that they were making no mistake in allowing the party to proceed.

New Members of the Corporation

At the last meeting of the Corporation of the Institute, Howard Elliott, chairman of the board of directors and president of the New York, New Haven & Hartford Railroad, and Edwin S. Webster, '88, of the firm of Stone & Webster, were elected life members of the Corporation.

Mr. Webster was president of the Alumni Association in 1909, and the next year he was elected a term member of the Corporation, his term expiring in March.

The Corporation confirmed the election of William H. King, '94, J. W. Rollins, '78, and Jasper Whiting, '89, to term membership.

THE SEASON'S DOINGS IN ATHLETICS

Creditable record of undergraduate athletic achievements— One World's Record equalled

Following is a brief review of this year's athletic events:—

From the opening of the fall season to the finish of the indoor season the teams have met with varying success but as a whole the results have been quite satisfactory.

For the first two weeks of the year we were without track or field. The first practice was held on the new field at Cambridge on October 15, 1914. On October 17, the annual handicap cross-country race took place at Wakefield and of the 28 starters M. G. Graff, '16, with a handicap of 2 minutes, 15 seconds proved to be the winner and also made the fastest time of 41.56.

October 24, a practice dual meet with Harvard was held on the track at the field and though no official score was kept the results were in favor of the visitors.

November 6 was Field Day, which was won by 1918; the relay race was won by the sophomores in $4.56\frac{4}{5}$. While these events were on, the Varsity cross-country team was competing with Holy Cross in a dual run at Worcester. The Institute team succeeded in finishing every member in advance of the first Holy Cross man, thus making a perfect score of 21 to 81. Our first man, R. G. Brown, '16, established a new record for the course.

On November 7 the annual fall handicap games were held (with the exception of the mile and two-mile runs which were run on the following Tuesday and Wednesday), but as the weather was too cold and windy nothing of a startling nature occurred.

The New England I. C. A. A. cross-country championship was held November 14 over the Franklin Park Course, and was won by the University of Maine with 66 points; M.I.T. second, 69 points and Dartmouth third 74 points.

At New Haven, Conn., the I. C. A. A. A. championship cross-country was run over the Yale course at 10 a. m. the day of the Harvard and Yale football game, November 21. The event was won by Cornell with 35 points; Harvard second, 75; Yale, third, 91; M. I. T., fourth, 113. The other colleges starting teams

finished in the following order: University of Pennsylvania, Princeton, Colby, Dartmouth, Brown, Columbia, College of the City of New York.

On November 20, the freshmen took sixth place in the cross-country race at Andover for freshmen college and preparatory school teams.

During this season, 101 students took the track training.

The first event of the indoor season was the annual inter-class meet held on January 9 and was won by the sophomores, 30½ points; seniors, 28; juniors, 19½ and freshmen, 4. All events were well contested and one new record resulted, C. E. Buck clearing 11 feet in the pole vault.

The Coast Artillery Corps annual games at South Armory held their annual meet January 23, 1915. The Varsity one-mile relay team met Harvard and for three relays the Institute team led but on the fourth relay C. T. Guething, '16, was beaten by inches only, in the rush to the tape, by W. J. Bingham. The 75-yard dash open handicap was won by C. W. Loomis, '16, with a handicap of 3 feet, time, 8 seconds. T. H. Huff, '15, from scratch took third place in the 70-yard hurdles handicap. The Boston Irish-American Athletic Club held its second annual meet in Mechanics Hall on January 30. The Varsity relay team met Holy Cross in 1360-yard relay and on account of the late arrival of C. T. Guething, the fastest man on the team, it was necessary to put a substitute in his place which resulted in Holy Cross winning in time much slower than our regular team could do, 3.11. This fact was proved the following Saturday in our race on the same track against Dartmouth. The 40-yard dash handicap was won by C. W. Loomis, '16, from scratch in 4⅔ seconds. M. C. Brock, '17, took third place in the 440-yard run for novices.

The B. A. A. games were held February 6 at Mechanics Building and the Varsity mile relay team again defeated Dartmouth and established a new Technology record for this event of 3.08⅓. This team was made up in the following order: F. P. O'Hara, '17; C. S. Reed, '16; C. T. Guething, '16 and W. B. Colleary, '17. The 40-yard dash, scratch event, resulted in C. W. Loomis, '16, and F. P. O'Hara, '17, tying for second place. Capt. F. L. Cook, '15, took third place in the one-mile run.

The next appearance was at Hartford, Conn., at the annual games of Second Division Naval Militia, C. N. G., on February 19.

The mile relay team met and defeated Georgetown University quite handily in $3.38\frac{1}{5}$.

The following day the annual meeting of the Armory Athletic Association was held at the State Armory at Providence, R. I. The Varsity two-mile relay team was defeated by Dartmouth which was quite expected as the M. I. T. four were all men running such an event for the first time, and was in the nature of experience for the future rather than the hopes for a victory. The open fifty-yard handicap was won by C. W. Loomis, '16, from scratch in $5\frac{2}{5}$ seconds which equals the world's record. F. P. O'Hara, '17, also from scratch took third place in this event. T. H. Huff, '15, from scratch won third place in the 50-yard high hurdles handicap.

February 27 the New England A. A. W. championship was held at Lowell, Mass., and C. W. Loomis again came to the front, winning the senior championship dash. On March 4 he competed in the national senior championship of the A. A. U. and was third in the 75-yard dash, thus bringing to a close a term of remarkable successes and undoubtedly the best record attained during the season by an M. I. T. athlete. T. H. Huff, '15, won third place in the 45-yard high hurdle senior championship.

The last event of the season was the first annual Intercollegiate A. A. A. A. meeting which was held at Madison Square Garden, New York City, March 6. M. I. T. was represented in the 8000-yard relay championship by the men who ran as follows: C. T. Guething, '16; H. Allan, '17; Capt. F. L. Cook, '15; and R. G. Brown, '16. Cornell won first place, M. I. T. second; University of Pennsylvania third.

The most pleasing features of the season, aside from the victories, were the usual clean conduct in all competition and the defeats the athletes of M. I. T. have administered to opponents of greater prominence in intercollegiate athletic circles.

FRANK M. KANALY,

Coach of Track Athletics and Director of Physical Education.

ENGINEERING OPPORTUNITY STUDENT CONFERENCES

Foreign students at the Institute present the opportunities that are offered in their native countries

An interesting and helpful series of student conferences at M. I. T. has been the series of five on successive Thursdays which has taken up one after the other the engineering opportunities of South America, Japan, China, India and Turkey, the principal speakers at each conference save the last one being students from the countries under discussion. The study of conditions owes its initiative and continuing force to a sophomore, Edward L. Clark, A. B., of Oberlin, O., who has himself the practical knowledge that a couple of years in Japan affords.

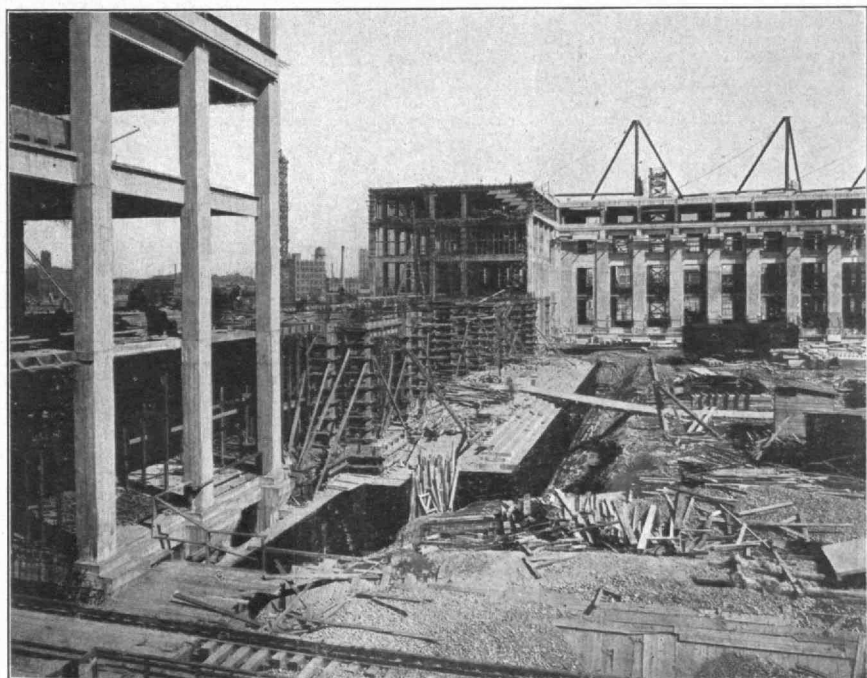
At the conference on South America there were three speakers, Antonio R. Guimaraes of Rio Preto, Brazil, a graduate student; Pedro P. Pizzorno of Manoos, Brazil, a senior; and V. P. Checa of Piura, Peru, a sophomore.

Mr. Guimaraes outlined the enormous size of Brazil, the lack of any survey of its resources save the sporadic ones in the direct interests of some particular industry. The country is 200,000 square miles larger than the United States proper, and is in much the condition of this country in 1860. Altogether there are only 14,000 miles of railway, which penetrate the state to a degree that would be represented by the vicinity of Cleveland in this country. Rubber districts are, for example, 400 miles from the end of the railway, which itself extends inland, 1,400 miles from the coast. In Chile half of the 4,000 miles belong to the Government but otherwise there is excellent opportunity for railway engineering. In the water power there is enormous chance for development. Coal for manufacturing purposes is imported, England supplying about two-thirds of the needed quantity. The speaker referred to the ancient systems of irrigating canals which could be put into commission again for irrigation and for power.

Mr. Pizzorno spoke in favor of the much maligned climate of Brazil. The government is advanced in its ideas and practice of sanitation; yellow fever has been exterminated and with the



NEW INSTITUTE BUILDINGS NOS. 2 AND 4 FROM THE PARKWAY
Taken March 4, 1915



WHERE THE CENTRAL LIBRARY BUILDING IS GOING UP
Photograph taken in March

draining of swamps, malaria has been much decreased. Mr. Checca noted that in the Peru of the Pizarros, 80,000 natives cultivated 250,000 acres, of which there is today only a fraction in use. The reclaiming of this good land will be an engineering project of the future.

At the conference on Japan there were three speakers, Mr. Enoch Bell, a teacher in the country, who outlined the educational situation; Mr. Clark, who spoke of the resources and engineering needs of the country; and Professor C. H. Peabody, who in the seventies was one of a group of Massachusetts men who helped establish what is now the College of Agriculture.

The Chinese students who spoke of their country at the third conference were Tsun Chang and Z. Y. Chow, both seniors, and made it evident that Chinese resources are hardly yet beginning to be developed. In mining coal the increase between 1910 and 1913 was 45 per cent. and the export of pig iron in 1911 was 20 per cent. more than the year before. There are other metals to be developed, copper, zinc, tin, gold and silver. These improvements will however be ultimately dependent on better transportation, which in 1913 figured only 9,000 miles, one-third of which was under construction. Then there are river improvements of great magnitude. The rectification of the Han, the smallest of the three great Chinese rivers is estimated at about \$15,000,000. There is here great opportunity for modern trained engineers.

For India there were two regular speakers, Dr. William E. Strong of the A. B. C. F. M., and Kshitish Chandra Basu, M. A., of Howrah, another Hindu, Diwan Nanak Chand, of Gujranwala, taking part in the informal discussion. After commenting on the condition of a country where two-thirds of a population of 315,000,000 must depend upon agriculture and where there is only one agricultural school and this with eleven students, Dr. Strong spoke of the opportunities for irrigation engineering and for the establishment of dry farming methods. The next most important industry is cotton weaving but the local demand is far greater than the supply and although it exports cotton, India imports much cotton cloth. Although there are some important mills, even up to two or three thousand operatives, most of the weaving is done on hand looms. David C. Churchill, '99, has given most important service in making efficient the heavy, awkward native looms. The work of the school with which Mr. Churchill is connected has been to develop

industrial workers where there were none before. There is much opportunity for railroad development, for a country about as large as the United States has only one-tenth the mileage.

Discussing obstacles, Dr. Strong spoke of caste, which virtually places a man in the occupation of his caste as soon as he is able to work. There are social objections to a native undertaking to push himself by his employment into a caste superior to his normal one.

Mr. Basu has a rather pessimistic view of the future of India. He thinks the Government never loses sight of the Manchester mills in regulating the industries of the country. Mr. Basu spoke more particularly about the Calcutta University, which is not a residential institution, but examines and confers degrees.

The last of the conferences was on Turkey and the principal speaker was Brewer Eddy. The story, illustrated by lantern slides, had largely to do with the war conditions, touching at times on the railroad development needed and on irrigation in the valley of the Euphrates, where parallel branches are separated by some fifty miles of territory with sufficient fall to make a well-considered plan easy of accomplishment.

JOHN RITCHIE, JR.

Gift of Apparatus

Through the kindness of Col. Charles Hayden, '90, a member of the Corporation, the Mining Department of the Institute has recently received a complete working unit of the Janney Oil Flotation apparatus. This particular unit has been especially designed for testing work, and has more than the usual adjustments for meeting various conditions.

The process of oil flotation, which is of comparatively recent development in ore dressing, is making tremendous strides, and the mill men throughout the country are experimenting with it, and in many cases have already installed the process as a part of their mill scheme. The increased profit to the operators, since the introduction of this new apparatus, is estimated to run into the millions.

WHEN WE WERE FRESHMEN

Reminiscences of serious or humorous experiences of alumni during their student days at the Institute

When I received a letter from the editor of the *REVIEW* asking for a note from me to add to the "When We Were Freshmen" collection I had no notion other than to let the matter slide, impolitely if you will it so. I am no publicist.

On running through the *New York Sun* reaching here today my eye caught, on the front page, the notice of sudden death of H. Ward Leonard, '83, and in that connection there has been awakened so much of recollection of Tech days that I cannot forbear to offer a few lines.

Going back: Lawrence Rotch and I entered the School of Mechanic Arts, long since abandoned as a part of the Institute but in those days quite a factor, the principal instruction being given in a temporary building located between Rogers' and Walker buildings. The Walker building was not built then, a so-called gymnasium and drill-shed occupying the space, also temporarily. We sawed and planed and "carped"; filed and chipped; blacksmithed and all other things that the others did. In drafting, my old and respected friend, H. K. Burrison, gave instruction, the merit of which stands out strongly in the light of later years. He was then at the beginning of his long and honorable career at the Institute.

Rotch and I went forward together and entered the regular courses with the class of '84. It doesn't matter materially what we did or didn't do after entering. Rotch was a Bostonian and lived at home. I was a Connecticut Yankee and lived the usual life of the undergraduate of those days. Most Institute men lived in Columbus avenue side streets—near Dartmouth street. Those trips over Dartmouth street bridge on winter mornings will not easily be forgotten. The chill is now in my bones permanently, but it wasn't then. That East wind was fierce on the unshorn lambs.

That first fall was the Garfield presidential campaign. Institute students paraded under torch light. As a company officer

I had a special kind of torch, the body of glass with inscription "A Pure Ballot Box" painted on it. Early in the march I "basted" some bystander with the pure ballot box and paraded the rest of the evening with only the handle. The necessary "light" was otherwise provided. Those were the happy days.

Skipping a lot now I come to the organization of the V. L. Club which brings into my tale anew the name of H. Ward Leonard. The V. L. Club was the first of the Tech semi-social dining organizations. The main reason for its coming into being was that, collectively, we were tired, *tired*, TIRED of Columbus avenue boarding house diet and determined to apply organized bargaining to the end to procure more appetizing food at a price within our means. The top price which our purses permitted was five dollars a week—hence the club name V. L. (V\$ limit). That was a secret, our only one.

After various and sundry trials to our appetites and to caterers we definitely located at Hotel Carrolton, across from the present Hotel Thorndike. The Carrolton was kept by "the relict of the late Pat Carrol," so the widow formally described herself to inquirers, and was the dining place for a Bohemian coterie of artists, musicians, newspaper men and women and such. The chef was a fierce looking Italian, named Tony, who occasionally ran amuck. Our private dining room upstairs immediately became a center for not only our regular members but others who after election became known as "special section." Every member, "regular section" and "special section" had office with significant title and duties. Myself, I was C. O. C. (Custodian of old chestnuts). I have forgotten what Billy O'Brien was. Jack Harding was A. M. (Action Master) and was a good one. There were regular discussions at each dinner, one in especial always started by O'Brien with words addressed to nobody in particular, "Well!! this is a metropolitan life!" The regular reply implied doubt as to whether it was a metropolitan life or a cosmopolitan life. That question while debated daily was never settled except that a twilight zone possibly existed between the two extremes. Another inquiry invariably propounded with spaghetti course was, "What historical event is recalled by this food we are now eating?" Somebody suggested the Diet-at-Worms, which satisfied Billy. These are but examples of our *Kultur*. Leonard sat at the head of the table and was called "Section Master," S. M. He was always the

master both as student and in later years as an engineer, inventor, business leader and in all else—a natural leader of men through sheer force and ability.

Others of that company or club were Tompkins, Eppendorff, Baldwin, Heywood, Bodwell, O'Brien, Harding, Wilder, Kimball, du Pont, Lufkin, Whitney, Jo. Pierce and Charles Brown.

There were others but their names and faces do not come to me now after more than thirty years. Of "special section" there were Litchfield, Little, Rotch and Frank Haines among others. Everyone had an office and title as before related and we ate, drank, were merry and we *worked*. It is not meet to go through my list and place asterisks beside the names of those mentioned who preceded Leonard to the Great Beyond. Better let us think of them as again sitting around our table in the Carrolton, passing around the "bougie" and debating "Metropolitan life" and "Diet-at-Worms" and all of us beardless and happy undergrads with the Section Master at the head of the table, Tompkins at the foot.

WALTER H. BUNCE '84,
Hartford, Conn.

The Retort Effective

It is getting to be the fashion, and a very good fashion, for classes to issue publications in order to boom anniversary occasions. The class of '85 has long been the only class that has published a regular publication, the '85 *Hustler*, but now the class of '02 is in the ring with the *Retort*, a very interesting publication, giving a lot of news of special interest to the class. This includes dinner notices, a reference to the Tech Show, articles in regard to members of the class and personals. It is a four-page folder with three columns on each page, and is to assist in bringing out class spirit and increasing class gatherings.

The time will come when most of the classes will have class publications of this kind, and we also hope to see a large number of the local alumni associations issuing bulletins, if only one or two a year, giving full information in regard to local association matters.

LOCAL UNITS GROWING STRONGER

Technology Club of Philadelphia to have a home—Indianapolis has a grand welcome for the President—Rhode Island affairs booming—Burst of speed in Detroit.

TECH CLUB OF THE UNIVERSITY OF ILLINOIS.—On the morning of March 11, a few of the members of the Tech Club of the University of Illinois in company with W. W. DeBerard, '01, and W. T. Barnes, '93, from Chicago, went to Danville on the excursion of the Illinois section of the American Water Works Association. The outing included a visit to two coal mines, a two-mile ride underground on a mine train, a visit to the Danville Waterworks. At 6 p. m. the main body of the celebrators came over from Champaign and Urbana, meeting the advance guard which had participated in the excursion. The occasion for this gathering was the annual dinner of this organization which was held this year at the Hofbrau in Danville, far removed from the arid climate of Champaign County. Those present were Paul Hansen, '03, Ralph Hilscher, '10, E. D. Frang, '06, A. B. M. Corrubia, '11, W. D. Foster, '11, H. W. Waterfall, '11, W. W. DeBerard, '01, A. C. Willard, '04, E. A. Holbrook, '04, H. F. Ferguson, '12, and H. E. Babbitt, '11. As the saying goes, "a pleasant time was had by all" and all went home sober but happy.—*H. E. Babbitt, '11, Secretary, 806 W. California Street, Urbana, Ill.*

TECHNOLOGY CLUB OF PHILADELPHIA.—Arrangements are being made for an affiliation with the Engineers Club which will mean permanent headquarters for our club at 1317 Spruce street. This affiliated membership means attractive quarters for the monthly gatherings, a corner for the secretary's desk, subscription to the Club Bulletin, the privilege of attending meetings of the various professional societies, and many other advantages.

It is an opportunity for increased activity which should do much towards bringing together all the alumni who are within reach of Philadelphia. All the live ones are confidently expected at the first meeting in the new home.

It has been the custom for several years past to end the club



PROFESSOR GAETANO LANZA, MRS. LANZA AND
MISS LANZA WATCHING THE GAMES



“TECHLETS”

Scenes at the Outing of the Technology Club of Philadelphia last June

activities each year with a field day at the Woodbury Country Club, which, although in New Jersey, is easily accessible.

After an afternoon of athletic rivalry between the married and the single men, the victors and the vanquished join the fair rooters on the side lines for a picnic supper. Somewhat later, those who are adept in the latest dances proudly display their up-to-the-minute steps on the club floor. It is an occasion with a distinctly more-ish taste and no one, having once enjoyed the hospitality of the Woodbury members, ever fails to be on hand the following June.

A few pictures of the near ball teams, tug-of-war squads, etc., at last year's outing are shown with the hope of proving the folly of any Tech man, near Philadelphia early in June, who does not call up the secretary at the Engineers' Club to find out whether he cannot arrange to join the fun at Woodbury.—*George C. Lees, '08, Secretary, 826 So. Alden Street, Philadelphia, Pa.*

ST. LOUIS SOCIETY OF THE M. I. T.—On Tuesday evening, February 9, the St. Louis Society turned out in force at the Engineers Club to see the latest pictures of the New Technology, and to enjoy a pipe and stein. The slides furnished by the Alumni Association showing the original plans and elevations were supplemented by the more recent pictures of the actual construction published in the *TECHNOLOGY REVIEW* and in the *Stone & Webster Public Service Journal*. J. L. Mauran, '89, explained the matchless possibilities of the location, the fitness of the style of architecture selected, and the effectiveness of the architectural treatment; and A. M. Holcombe, '04, described the type of construction of the buildings, the contractors' plant and the methods employed for conducting and expediting the work. The reflectoscope was brought into play with good effect to present a few of the pictorial hits of former editions of *Technique*. Seeing again these old friends brought forth some interesting yarns from the older men, and went a long way toward eliminating the time interval between them and the younger fellows. When the lights were turned on the whole party found themselves on familiar ground, comparing notes years apart regardless of the time intervening. The following men were present: W. C. Dickenson, '70; J. L. Mauran, '89; W. R. Phemixer, '95; G. R. Wadleigh, '97; H. J. Lohbiller, '01; J. M. Gammons, '03; E. A. Garrett, '03; C. P. Bascom, '04; A. M. Hol-

combe, '04; E. L. Brown, Jr., '08; S. K. Cohen, '10; Marcel Desloge, '12; E. A. Downey, '13; J. A. O'Reilly, '13; A. J. Pastene, '13; B. F. Thomas, Jr., '13; P. E. Morrell, '14; Thomas Reyburn, '14.

The nomination of Professor Spofford to represent this society on the Alumni Council was approved.—*A. M. Holcombe, '04, Secretary-Treasurer, 510 Pine Street, St. Louis, Mo.*

On Friday, March 26, 1915, at 12.30 p. m., the St. Louis Society of M. I. T. held a luncheon in honor of Mr. A. F. Bemis, '93, at the Busy Bee. Mr. Bemis is a member of the Corporation of the Institute and after the luncheon, spoke a few words upon the present condition of the new buildings in Cambridge. The Trinity place property on account of the war could not be disposed of advantageously at this time and the Institute has been forced to hold this property for more propitious times. The loss of the expected income from this sale has financially embarrassed the Institute as it was anticipating the use of this money. The status of the Boylston street property is still undecided, but it is hoped that the Institute will soon be able to dispose of this also. The only anticipated trouble is to obtain the consent of the property owners on Newbury street.

A number of questions were asked about the types of construction of the new buildings, and about the prospects of the Institute raising the necessary funds.

Mr. Thomas spoke about changing the name of the society to the "St. Louis Technology Club" to conform with the majority of other M. I. T. alumni organizations, as was the wish of the Alumni Council a few years ago. Mr. Mauran, '89, president, referred the matter to the next meeting when the secretary would be present. The meeting was nearly a record-breaker in the point of attendance. Fourteen local men were present to greet Mr. Bemis. Those present were: J. L. Mauran, '89, A. F. Bemis, '93, S. F. Rosenheim, '93, E. C. Klipstein, '94, G. R. Wadleigh, '97, C. E. Smith, '00, S. L. Wonson, '01, E. A. Garrett, '03, E. L. Brown, Jr., '08, J. Desloge, '12, M. Desloge, '12, E. A. Downey, '13, T. A. O'Reilly, '13, B. F. Thomas, Jr., '13, P. Morrill, '14.

The meeting adjourned about 2.00 p. m.—*Benj. F. Thomas, Jr., '13, Assistant Secretary, St. Louis, Mo.*

TECHNOLOGY CLUB OF NORTHERN OHIO.—The Technology Club of Northern Ohio has been active during the winter months.

A delegation attended the Pittsburgh convention of the Technology Clubs Associated and Messrs. P. W. Litchfield, '96, and A. T. Hopkins, '97, were appointed on a committee to discuss problems in connection with the course in business administration.

Doctor Maclaurin addressed the Cleveland Chamber of Commerce at noon on February 23 and forty-five Cleveland boys were on hand to raise a Tech cheer when he was introduced. The chamber was graced with a large Technology banner and special tables with red and gray trimmings, were reserved for the Tech men. Doctor Maclaurin's talk was on the subject of "Some Good Things That May Come from the War," and was well received. Following the luncheon an informal reception for Tech men was held and in the afternoon Doctor Maclaurin visited the Peerless Motor Car Company and the Mechanical Rubber Company.

The following day Field Manager I. W. Litchfield, '85, was in town and was entertained at luncheon at the Athletic Club and later visited the Peerless Motor Car Company.

Charlie Haynes, '04, has given up his position as superintendent of the Mechanical Rubber Company and goes East to a better position in the work of standardizing the management in several of the factories which are a part of the big United States Rubber Corporation.—H. G. Reynolds, '10, has left Cleveland and gone to Toledo; Lyman Bourne, '04, has left the Goodyear Tire and Rubber Company and associated with the Double Fabric Tire Company, Auburn, Ind.

It may interest the readers of the REVIEW to know what some of the Tech men are doing in and about Cleveland: A. W. Johnston, '73, is general manager of the Nickel Plate Railroad; F. A. Smythe, '90, is president of the Thew Automatic Shovel Company; R. B. Sheridan, '95, is general manager of the Brown Hoisting Machinery Company; R. W. Pratt, '98, is sanitary engineer, city of Cleveland, in charge of the work on new city filtration plant; Walker & Weeks, leading architects; P. W. Litchfield, '96, factory manager of Goodyear Tire and Rubber Company; Henry Souther, '87, vice-president and general manager, Ferro Machine and Foundry Company; Professors Dates, '94, Sweetser, '01, Bardwell, '84, and Danforth, '98, of the Case School of Applied Science; Max Hellman, '98, manager of the Lindner Company; A. T. Hopkins, '97, manager of the Mechanical Rubber Company; W. R. Strickland, '98, chief engineer of the Peerless Motor Car Company; A. D. Hatfield, '96, president

of Cleveland Insurance Men's Association; F. B. Richards, '84, with M. A. Hanna Company; R. B. Wallace, '99, vice-president of American Ship Building Company.

There are many others holding important positions which will not be mentioned because of space requirements.

Business conditions in and about Cleveland are generally improved.—*Don Stevens '11, Secretary Peerless Motor Car Company, Cleveland, Ohio.*

THE CINCINNATI M. I. T. CLUB.—H. S. Morse, '03, has been selected director of the Cincinnati Bureau of Municipal Research by the board of trustees of that organization. The purpose of this bureau is to conduct non-partisan study of methods and work of the departments of the Cincinnati city government, to recommend such modifications and improvements as it believes to be of advantage, to promote the efficiency and economy of municipal administration, and to furnish citizens with the facts of public business. It was first organized in the spring of 1909 and has through the agency of publicity proved an important factor in securing a marked improvement in governmental standards and methods in the city of Cincinnati.

Mr. Morse while an undergraduate was editor-in-chief of both *The Tech* and *Technique*. Directly after graduating he returned to the Institute for one year as assistant in civil engineering. After leaving the service of the Institute he was with the U. S. Reclamation Service for four years as resident engineer on irrigation work in the Lower Yellowstone River. Following this he was for four years in Louisville, Kentucky, as resident engineer for the commissioners of sewerage. From Louisville he went to Cincinnati with the Department of Public Service under H. M. Waite, '90, and now city manager of Dayton. While in the service of the city of Cincinnati Mr. Morse had charge of an investigation of sewerage conditions in the city as well as the current work of sewer construction. This investigation included the making of both a topographic map and an underground survey of the city with plans for intercepting sewers, storm relief sewerage, creek improvements and sewage disposal. Since leaving the service of the city of Cincinnati in October, 1914, he has been engineer for the Ohio Institute for Public Efficiency with main offices at Columbus. His office address is now, 804 Neave Building, Cincinnati, Ohio.

One of our local men, Mr. Charles G. Merrell, '88, has recently been elected president of the William S. Merrell Chemical Company to succeed his father, the late Mr. George Merrell.

The William S. Merrell Chemical Company has the distinction of being the oldest pharmaceutical house in the United States, and Mr. Charles Merrell represents the third generation of the name to be its head. After leaving Tech he worked from the bottom up and is one of the best equipped men in the pharmaceutical business. His many friends wish him success in his new position.

Cards are out, announcing that Edward H. Kruckemeyer has opened an office in the St. Paul Building, 111 East Fourth avenue, Cincinnati, Ohio, for the general practice of the profession.

Mr. Kruckemeyer is a Cincinnati by birth, and a graduate of the Walnut Hills High School. After leaving high school, he attended the Ohio Mechanics Institute. He had four years of practical business, and architectural experience, before going to the University of Michigan, from whence he went to Boston, graduating from Technology in 1911. Besides winning several prizes in design while at Tech, he was awarded the Rotch Scholarship for the highest standing in architectural design and general studies covering the entire period. After leaving Tech, he was taken into the office of Codman and Despradelle. While in Boston, Mr. Kruckemeyer gained more practical experience, on a large scale, while with Bigelow and Wadsworth. Upon returning to Cincinnati, he was again in the office of Garber and Woodward, until the spring of last year, when he, with Charles R. Strong, '11, who has recently been elected president of the Cincinnati Architectural Club, planned a six months' trip to Europe to study the remarkable examples of architecture to be found there. They were forced back to America, however, somewhat sooner than they had expected, because of the European war. After a stay in the East, Mr. Kruckemeyer returned to Cincinnati, and has been practicing since that time. He is a member of the Cincinnati Chapter of the American Institute of Architects, Cincinnati Architectural Club, Cincinnati M. I. T. Club, Cincinnati Art Club, and many other business and social clubs.

We were pleased to receive cards bearing the pleasant news that John Morris Hargrave '12, is to be married on Wednesday, March the tenth, 1915, to Miss Bertha Balke of Indianapolis, Indiana. Mr. Hargrave is vice-president of the Cincinnati M. I. T. Club,

and president of the Cincinnati Tool Company Norwood, Ohio. Miss Balke is a sister of Frank Balke, '13. The couple will leave immediately after the wedding for a tour of the West, stopping for a stay at the Panama Exposition and after the first of June will be at home at 3439 Berry avenue, Hyde Park, Cincinnati. —*Edward H. Kruckemeyer, '11, Secretary, 111 East Fourth Avenue, Cincinnati, Ohio.*

INDIANA ASSOCIATION, M. I. T.—On February 22 the Indiana Association of the M. I. T. set the pace among the local college alumni organizations, by giving a dinner in honor of Doctor MacLaurin.

Taking the initiative, we invited the Indiana Harvard Club as guests, and Dr. W. F. Stone, president of Purdue, Mr. John White, vice-president of Rose Polytechnic, and Dr. Thomas Howe, president of Butler College, to join in welcoming our distinguished president.

The banquet room of the Indianapolis University Club was decorated à la Washington's Birthday style, with college colors, pennants, and streamers added to the national emblems.

The table was arranged in the shape of a huge T, and embellished with large pots of real cherry blossoms.

Toastmaster Wayne, '96, being presented with a genuine forty-two centimetre hatchet of proportions coinciding with his build, gaveled the assemblage to order, and speaking briefly on the old time Tech-Harvard scraps, recommended that all traditional (?) animosity be forgotten, and proceeded to "bury the hatchet" once and for all time, by calling for a coffin, and burying and sealing up this dangerous implement. Japanese attendants then brought in the "doves of peace" which, on being liberated, flew forth as only imitation roosters attached to cardinal cards can soar.

President MacLaurin, on being introduced, spoke on "The Allies" in a way that left no doubts among those present, as to the wisdom of the friendly alliance between Tech and Harvard.

It was a joy to all alumni to hear the doctor, and much cheering followed.

President Stone of Purdue University, followed in a fine talk on "Engineering Education in State Universities," after which Doctor Howe of Butler College, and Mr. John White of Rose Polytechnic paid graceful tributes to the work of Technology,

and added a warm welcome to Doctor Maclaurin, in behalf of the institutions they represented, Doctor Howe especially responding for the Indiana Harvard Club in absence of W. P. Hapgood, president of the Indiana Harvard Club, who was unavoidably called from the city.

Professors Turner, '86, and Davis, '00, of Purdue, Tech's chief assets as musical entertainers, used up three German silver "Mouth Harps" on "Tipperary," then the vocalists got busy on the "Stein Song" and "Fair Harvard," until train time when our President was escorted to the midnight train for Cleveland.

Charlie Rockwood, '01, John Holliday, '05, Boc Burrage, '92, President Wayne, '96, and Parker, '88, got up the party; Herman Scherrer, '03, did himself proud on the programs. It was "some party."—*Wilson B. Parker, '88, Secretary, 805 Board of Trade Bldg., Indianapolis, Ind.*

DETROIT TECHNOLOGY ASSOCIATION.—On February 23, at the Edelweiss Café, twenty-one members of the Detroit Alumni Association met for a most enjoyable gathering in honor of I. W. Litchfield, '85.

The meeting was entirely informal, and everyone there enjoyed himself fully, listening to Ike tell, in his inimitable way, of the recent big doings in Pittsburgh, of the progress of the new buildings at Cambridge, and of undergraduate affairs at the Institute. Everybody was impressed with Ike's description of the broadening changes which are coming about in Institute life. In spite of increasingly hard work, students and professors are coming closer together and a broader and more human atmosphere is being built up all the time.

This point brought out considerable discussion, and the older men especially said that very often a man's personal relations with his fellows at college turn out later to be of quite as much use to him—or more—than his mathematics. Professor Weil was very earnest on this point.

After Ike's talk, and when all steins were dry, everybody joined in singing—with Murray Hastings, '13, at the piano. Murray proved to be a real find in the musical line and we have many future designs on him.

The notice for the meeting was very short or more fellows would undoubtedly have been there.

The following members were present: I. W. Litchfield, '85; Wm. R. Kales, '92; George R. Anthony, '98; Minot S. Dennett, '11; George L. Bixby, '95; Charles F. Hammond, '91; Charles L. Lupkin, '08; J. M. Hastings, '13; R. S. Hill, '10; E. B. Cooper, '05; J. W. Livingston, '14; Tracy Lyon, '85; A. F. Shattuck, '91; Frank H. Davis, '04; J. S. Rogers, '81; O. W. Albee, '93; D. V. Williamson, '10; Chas. L. Weil, '88; Waldso Turner, '05; Fred Sutter, '93; Harold W. Barker, '14; Andrew L. Matte, '09.

The next meeting is to be held on March 19 to entertain Professor Gill, '84, who is scheduled to speak to the Detroit Engineering Society on that night. A joint meeting with that society is planned at that time.

On Friday evening, March 19, Professor A. H. Gill of the chemical department addressed the Detroit Engineering Society on the subject of "Lubricating Oils."

Before going to the rooms of the society, Professor Gill was entertained at dinner by thirty-seven members of the Detroit Alumni Association at the Edelweiss Café. H. H. Esselstyn, president of the Detroit Engineering Society was also a guest at the meeting. The meeting was a short one, as it had to adjourn at 8.00 to the rooms of the Engineering Society, but notwithstanding, time was found for singing, a short vaudeville stunt and a brief talk from Professor Gill, giving us news from our *Alma Mater*.

At this meeting, President Kales announced that on April 17 President Maclaurin was coming to Detroit and that we were to have an alumni meeting in his honor. Enthusiasm ran high and it is firmly believed that the meeting next month will bring forth the biggest turn-out of Tech men that has ever occurred in Detroit.

The following men were present at the meeting and each one was delegated a salesman by the secretary to sell tickets for the luncheon which will be given for President Maclaurin at the Hotel Pontchartrain. Each member was furnished with three tickets to the luncheon and a complete list of all the alumni in the city, with three names checked off, and he was instructed that it was his duty to sell those tickets to the men checked off whether he knew them or not, or report to the secretary why.

William R. Kales, '92; George H. Kimball, '73; Frank H. Davis, '04; O. W. Albee, '93; Robert K. Floyd, '15; Edwin B. Snow, Jr., '05; W. C. Chaffee, '00; Howard T. Graber, '03; Tracy Lyon, '85;

John W. Case, '88; Henry T. Chandler, '14; Edgar Menderson, '13; R. N. Soule, '06; L. E. Williams, '02; J. W. Livingston, '14; Howard S. Currier, '13; Andrew L. Matte, '09; Harold W. Barker, '14; J. M. White, '14; A. L. Fischer, '03; Granger Whitney, '87; G. R. Anthony, '98; E. B. Cooper, '05; Kenneth Greenleaf, '11; R. F. Hill, '10; C. W. Dow, '11; J. H. O'Brien, '10; Preston M. Smith, '04; J. M. Hastings, '13; Charles L. Lufkin, '08; Charles L. Weil, '88; F. W. Fuger, '91; Fred Sutter, '93; M. S. Dennett, '11; George L. Bixby, '95; Marvin Gorham, '93; D. V. Williamson, '10.

After the meeting the members adjourned in a body to the rooms of the Detroit Engineering Society and listened with great interest to Professor Gill's talk.—*D. V. Williamson, '10, Secretary, 161 Blaine Avenue, Detroit, Mich.*

WASHINGTON SOCIETY OF THE M. I. T.—Two meetings have been held so far this year, and another is planned for March at which we hope to have a large and enthusiastic crowd of Tech men from '68 to '14 inclusive. The February meeting was held February 8 at the University Club, McPherson Square and I street N. W., and was a news gathering to hear what the happenings were at the "Stute." Mr. Litchfield was present for the occasion and gave us full measure. He left a few pictures from the Stone & Webster magazine showing the condition of the new buildings as they were a few months ago. There were thirty-six present and we enjoyed seeing the familiar faces of the older members and the new faces of the Tech men who have recently come to town, and hope we may soon know them better.

The secretary is especially desirous of having his index up to date and would appreciate it, if all in this vicinity who have not been receiving notices of our meetings, or have recently come to town would communicate with him, and also notify him of any newcomers from Tech.

If any Tech men are visiting Washington, we should be glad to have them meet with us and apprise them of such meetings if they will communicate their presence to the secretary.—*H. G. A. Black, '10, Secretary, W. S. Patent Office, Washington, D. C.*

TECHNOLOGY CLUB OF ALBANY.—What is believed to be a new departure for the Technology clubs has recently been undertaken by the Technology Club of Albany by giving a course of free public lectures on the engineering work of the State of New York.

These lectures were given under the auspices of the University of the State of New York in the auditorium of the new State Education Building in Albany.

New York has in the last few years spent many millions of dollars in projects of great magnitude, making Albany an engineering center of importance and interest. In the various departments of the state charged with engineering work many Tech men are employed in reponsible positions, so that it was possible to call on our own men for three of these talks. Mr. Williams, the state engineer and surveyor, though not one of us, kindly consented to give a talk on the work of his department.

All things considered, the attendance at these lectures was good and it is now proposed to carry on the series next year.

McKim, '86, and Dean, '95, were the committee in charge. The program was as follows:

February 9. "The State Highways," George A. Ricker, '85, First Deputy, State Department of Highways.

February 16. "The Dams of the State," Alex Rice McKim, '86, Inspector of Docks and Dams, Conservation Commission.

February 23. "Public Health," Theodore Horton, '94, Chief Engineer, State Department of Health.

March 2. "The State Barge Canal," Frank M. Williams, State Engineer and Surveyor.—*Russell Suter, '00, Secretary, Albany, N. Y.*

TECHNOLOGY CLUB OF MERRIMACK VALLEY.—The annual meeting and banquet of the club occurred on Thursday evening, February 25, at the rooms of the Young Men's Christian Association, Lawrence. The business meeting was called at 6.45 p. m., President Geo. W. Hamblet, '88, presiding. Reports of the secretary and treasurer were read and approved. The chair then appointed R. A. Hale, '77, E. B. Carney, '93, and John C. Chase, '74, as a committee to bring in nominations for officers for 1915. Their report was as follows: President C. H. Eames, '97, Lowell; vice-president, R. F. Pickles, '87, Lawrence; member executive committee, W. M. Perley, '98, Lowell; representative to Alumni Council, R. A. Hale, '77, Lawrence.

The secretary was instructed to cast one vote for the names as submitted and they were declared elected.

Dinner was served at seven o'clock, nineteen men being present.

As guest of the evening the club were fortunate in having Mr. E. B. French, '89, vice-president and engineer of the Arkwright Mutual Fire Insurance Company. Mr. French gave an intensely interesting account, illustrated by lantern slides, of the great Salem fire of 1914, with particular reference to the burning of the Naumkeag Mills. Mr. French was present at the fire and was in full charge of the fire fighting work at the Naumkeag plant. The paper was not only of great interest, but also of much practical value to those who heard it, many of them being men associated in varying capacities with the large mills of Lowell and Lawrence, and who might at any time be called upon to fight a similar conflagration as occurred at Salem. At the close a vote of thanks was extended to Mr. French for his great favor.

Those present were Messrs. French of Andover, Hale, '77, Pickles, '85, Ashton, '96, Sjöström, '96, Hadley, '05, French, '00, Walker, '06, Wilson, '01, Hamblet, '88, and Collins, '97, of Lawrence, Perley, Pearson, '89, Eames, '97, Carney, '93, Manning, Miller, Hildreth of Lowell, and Chase, '74, of Derry Village.—*John A. Collins, Jr., '97, Secretary, 67 Thorndyke Street, Lawrence, Mass.*

TECHNOLOGY CLUB OF RHODE ISLAND.—The Technology Club of Rhode Island met at the University Club on Wednesday evening, February 17, 1915. A dinner was served in the private dining rooms of the club, with Mr. Leonard C. Wason, '91, as the speaker of the evening. Following the dinner, President Dart, '91, announced that the minutes of the previous meeting and routine business would be deferred until a future meeting, and then introduced Mr. Wason, who is president and general manager of the Aberthaw Construction Company, of Boston, Mass. Mr. Wason compared the different types of building construction, emphasizing the particular fitness of each for certain purposes. Reinforced concrete construction was dealt with at length, the speaker paying particular attention to the fire hazard and the effects upon this type of construction, as shown in the San Francisco, Baltimore and Edison factory fires. Numerous technical phases of the subject were also taken up and at the conclusion of the address the speaker answered several questions. Mr. John R. Freeman, '76, was then called upon and discussed several matters brought out by Mr. Wason, and outlined some of the possibilities of concrete as a building material.

The chair then thanked the speakers for their able treatment of such an interesting subject and appointed the following nominating committee to select officers for the coming year: Benj. G. Buttolph, '88, J. H. Cady, '08; Kenneth Wood, '94.

Those present included Messrs. Wason, '91, Bliss, '89, Cady, '06, Congdon, '09, Dart, '91, Edwards, '93, Fisher, '09, John R. Freeman, '76, Roger Freeman, '14, Hussey, '08, Homer, '85, Kennison, '08, Maguire, '12, Morey, '11, Pingree, '96, Pierce, '89, Simmons, '11, Shurrocks, '95, Starr, '02, Thornley, '09, Kenneth Wood, '94, Henry Wood, '11, and two guests. After a social hour the meeting adjourned.—*Clarence L. Hussey, '08, Secretary, 1547 Smith Street, Fruit Hill, Providence, R. I.*

Niemand Zu Hause

Now that the responsibility for raising money for athletics has been placed on the shoulders of the students, they are working hard in every direction to get the necessary funds. One of their activities is an annual semi-impromptu show in Huntington Hall. The first one was known as *Was ist Los*, the second one, *Ich Ka Bibble*, and this last one *Niemand Zu Hause*.

The performance consisted of a number of excellent variety acts such as have heretofore made these shows popular.

The advertising matter for the show stated that it was being given for the benefit of Technology's athletics and sports, including "football, handball, baseball, pushball, basketball, biscuit ball, fishball, and highball; track, relay-team, delay-team, cross country, cross Boylston street, marathon (top of Engineering A to top of Rogers Building and back), standing broad grin, sixteen pound lunch put, ice-breaking, submarine billiards, aviation, deviation, ratiocination; wrestling, fencing (barbed wire and the other kind), skating, scouting, ju-jitsu, fan-tan, bridge, low bridge, low hurdles, pool (swimming), pool (Kelly), snow-shoeing, gum-shoeing, skeeing, fox trotting, tug-of-war; rolling the pill; free-hand drawing, free-lunch drawing, cork drawing; forging (counter-feeding), eating-at-Hayes, beating-the-bursar, I-spy-the-dean, and ring-around-the-registrar."

The proceeds of the show were \$500.

TECH MEN IN THE PUBLIC EYE

DONALD E. RUSS, '07. A recent number of *Studio Light*, published by the Eastman Kodak Company of Rochester, N. Y., announces the fact that, due to the discoveries made by Mr. Russ, this company is manufacturing gelatin for photographic purposes on a large scale. The gelatin is used for making films for photographic and moving picture work, and an immense quantity is consumed annually. The supply of this gelatin was formerly imported from Germany where it was manufactured by secret process. Its importation has been practically impossible since the war began, and the Russ process has come to the rescue at the most opportune time. As a matter of secondary importance, gelatin produced here is in a better condition than that imported, as it deteriorates in handling and transportation.

GEORGE P. VANIER, '85, chief chemist of the Pennsylvania Steel Company, Steelton, Pa., has been awarded a certificate of merit by the Franklin Institute of Philadelphia, Pa., for a potash bulb designed for using in the determination, in industrial laboratories, of the total carbon in iron or steel. He has also designed zinc tubes and a sulphuric acid bulb for use in connection with the Vanier combustion train for the determination of carbon in steel by the direct combustion method with the electrical furnace.

LEONARD METCALF, '92, of the firm of Metcalf and Eddy, consulting engineers of Boston, was elected president of the New England Waterworks Association at their annual meeting, January 13. He was in private practice for a few years after leaving the Institute, and professor of mathematics and engineering at the Massachusetts Agricultural College. Later he re-entered private practice in partnership with Harrison P. Eddy, and during recent years he has devoted most of his time to the valuation of public utilities, in which he is a recognized authority. Mr. Metcalf is co-author with Mr. Eddy of the book, "American Sewerage Practice," the first volume of which has just been published.

DURWARD COPELAND, '03, has been appointed director of the Missouri School of Mines at Rolla, Mo.

CHARLES B. BREED, '97, professor of railroad engineering at the Institute, has recently been elected president of the New England Railroad Club.

ALFRED HAMPTON, '88, formerly inspector in charge of the immigration service at Galveston, Tex., has recently been appointed assistant commissioner-general of immigration by Secretary Wilson, with headquarters in Washington, D. C. Mr. Hampton, who is son of General Wade Hampton of South Carolina, served in the Spanish-American War as aide-de-camp to Major-General M. C. Butler.

Interesting Class News

Buried in the department of the REVIEW known as "news from the classes" are items of unusual interest, and we commend, to those of our readers who have the time and opportunity, a perusal of the news of classes other than their own.

In the 1868 class news Professor Richards goes into the detail of the discussion on courses at the meeting of the Technology Clubs Associated in Pittsburgh.

All the students who attended the Institute in the early 80's will regret to learn of the death of H. Ward Leonard. A short record of his career is published in the '83 class notes with a few letters from former students who were associated with him when he was at Tech. The class of '84 news tells of a new racing boat being built for Coleman du Pont, which is to have a guaranteed speed of at least 50 miles an hour, with a premium on every quarter of a mile exceeding that speed. The '85 news contains an interesting selection from a paper which Mr. Arthur D. Little read before the National Chamber of Commerce at Washington, D. C., on the "Coal Tar Color Situation." A statement of the value of various foods, taken from a government report written by Dr. Franklin White, is found in the news from the class of '90. [Mr. Hugh Moore's new vegetable substitute for butter is described in the class of '97 news, and so on down through the list are many interesting and entertaining items.

REPORT OF THE SECRETARY-TREASURER

The years' alumni record presented at the January meeting of the Alumni Council—Financial report and reports of special committees.

MEMBERSHIP:

The membership of the Alumni Association on December 31, 1914, was 6,718 of whom 5,358 were members by graduation and 1,360 by election. Of these, 348 are life members.

Dues were received for 1914 from 3,814 members, or about 57 per cent of the total number.

In November, 222 elected members were dropped for non-payment of dues, according to the constitution.

There are five honorary members: Ex-president Crafts, ex-president Pritchett, Mr. Wigglesworth, a former treasurer of the Institute, Dean Burton and President Maclaurin.

POLICIES AND SPECIAL VOTES:

The Council this year has outlined a policy by which the personnel of the various standing committees is to be changed gradually.

An informal Nominating Committee has been established, which, by the vote, is to be appointed each December to consider nominations for the various standing and special committees. Another informal nominating committee is to be appointed at the March meeting of the Council to consider nominations for membership on the various Alumni Advisory Committees on Undergraduate Activities.

It has been voted that all new business presented at a meeting shall go over to the next meeting, and in the meantime be referred to the Executive Committee.

By vote of the Council, the president and secretary-treasurer are made members *ex-officio*, without vote, of all committees. The Council has also adopted the policy of having the treasurer of the association, treasurer of all committees appointed since the annual meeting of January, 1914.

The Executive Committee appointed, subject to approval of

the local associations, more alumni to represent the local associations on the Council, so that the membership in the Council has been larger than usual this year, and has reached 98.

The policy established this year of inviting members of the Faculty as guests of the Council to give information to the members of the Council concerning the Institute and its various departments has been continued—and in particular the new Harvard professors have been asked to meet the Council.

EVENTS:

The beaver has this year been adopted as the mascot of the Alumni Association.

The Commencement Day celebration has returned to Symphony Hall; a pageant written by Professor Arlo Bates was presented most effectively last June.

The annual convention of the Technology Clubs Associated was held in Chicago.

A new office was created this year, that of field manager, and Mr. I. W. Litchfield, '85, was appointed to that office.

Resolutions were received during the past year from one association; namely, the Pittsburgh Association endorsing the plan of coöperation between the Institute and Harvard University.

The governor of the Commonwealth addressed the annual banquet, and at this meeting spoke of possible coöperation between the Institute and the Commonwealth of Massachusetts, laying a foundation for the appointment of a special committee to consider this problem.

The Council presented a plaster cast of the seal of the Institute, to the New York Technology Club, on the opening of its new club house, April 18, 1914.

The Harvard Alumni Association presented to the Council, through its secretary, an interesting outline of its activities.

Professor Munro of Harvard University addressed the Council on the Harvard Coöperative Society.

Your president addressed the students in convocation last April and gave them an outline of the activities of our Alumni Association.

Various members of the Institute Faculty have been guests at the Council meetings when subjects of especial interest to them have been discussed.

The Runkle Memorial Committee has been authorized to collect money for a portrait of the late President Runkle.

The question of increase of revenue from advertising in the REVIEW has been discussed by the Council, and has been referred to the Committee on Publication of the REVIEW, which, at the same meeting, was authorized to assume control of the editorial policy of the REVIEW.

Alumni night at the Undergraduate Tech Show was held, and in this way the alumni aided undergraduate athletics. The proceeds of the show are devoted to the Athletic Association.

The All-Technology reunion, proposed for 1915, has, by vote of the Council, been postponed.

At the December meeting of the Council the architect of the new Institute and representatives from the Stone & Webster Engineering Corporation gave a most interesting outline of the New Technology, of its plans and its construction.

SPECIAL COMMITTEES:

During the year nine special committees have been appointed to consider the various problems.

The committee to consider the question of coöperation between the Institute and the Commonwealth of Massachusetts was appointed, made its report, and was discharged.

The Committee on Musical Affairs was abolished at an early meeting of the Council, and one on assemblies was appointed in its place. This committee had charge of the Commencement Day celebration and the annual banquet of 1915.

A committee was appointed to consider the relations between alumni advisory councils and undergraduate activities. This committee made a report, which was accepted, and the committee was discharged.

A special standing committee of three was appointed to consider ways and means of increasing membership and collecting dues.

A committee to consider the question of publicity was appointed and made a report containing two separate recommendations, one of which was referred to the Executive Committee of the Corporation of the Institute about publishing literature of the Institute in foreign languages; and the other recommendation, concerning publishing of an alumni weekly, has been referred to another committee which has not as yet made its report.

A special committee was appointed to consider the question raised by the undergraduates concerning their coöperative Society. This committee made a report, which recommended that the Institute Coöperative Society coöperate with the Harvard Coöperative Society. This report was accepted, and the committee was discharged.

A committee on dormitories was appointed following the question of how the Alumni Association can render greater and more direct service to its members, the Institute and the community. This committee is still in session and has not yet made its final report.

A standing committee was appointed to consider the question of coöperation between the alumni of the Institute and the alumni of Harvard University. This committee has not yet made its report.

A special committee was appointed to consider the establishment of a library of records for the association.

FINANCIAL STANDING:

For several years it has been necessary for the treasurer to report to the Council that there has been a deficit. This has happened now for such a period that it would be natural for the Council again to expect the same announcement. The present administration, however, has "cut its cloth according to its measure," and the officers of the administration are glad to announce to the Council that the expenses of the year have been less than the income by \$567.83.

It is true that while the last administration left an accumulative deficit of over \$1,200, it very generously bequeathed a plan by which the income of the current year has been considerably larger than usual. The plan of Sustaining Membership was started just before the last administration closed its year. Hence the present administration has been able to act more generously this year, and the large number of activities, which have been mentioned in this report have, in this way, been permitted. The administration for the past year has continued this policy of Sustaining Membership, and your president has assumed the arduous task of signing some 1,200 personal letters to the alumni, and it is gratifying to be able to announce that already there promise to be more sustaining members for the new administration than last year when there were 167.

This accumulative deficit of \$1,220.78 has now been reduced to \$652.95, the retiring administration having been able to pay all its bills and to have wiped out \$567.83 of this deficit.

The books of the treasurer have been examined by a certified public accountant, and the financial statement for the past year has been checked up, and your auditors, appointed in accordance with the by-laws of the association, make the following report; and the annual financial statement is presented herewith.

WALTER HUMPHREYS, *Secretary*.

REPORT OF THE AUDITORS APPOINTED BY THE PRESIDENT OF THE
ALUMNI ASSOCIATION, AS PROVIDED IN THE CONSTITUTION, TO
EXAMINE THE BOOKS AND FUNDS OF OFFICERS AND COM-
MITTEES HOLDING FUNDS OF THE ASSOCIATION

January 25, 1915.

ALUMNI ASSOCIATION,
MASSACHUSETTS INSTITUTE OF TECHNOLOGY,
BOSTON, MASS.

Gentlemen:

We have personally checked the securities held by the Committee on Permanent Funds and have made a general examination of the books.

We have in connection with our audit employed the firm of Harvey S. Chase & Company, Public Accountants, to make a detailed investigation of the accounts of the Alumni Association and of the alumni committees holding funds of the association.

The report of this firm of accountants is as follows.

"In accordance with the request of Messrs. Emerson and Knight, transmitted through Mr. Humphreys, we have made an examination of the books and accounts of the Alumni Association for the year ended December 31, 1914. We have audited all vouchers for the year, made thorough testings of all footing and all postings, have balanced the accounts receivable and the accounts payable, and do hereby certify that the balance sheet and the income and expense statement, as rendered to you, is correct, so far as books and records show.

"We have made a cash audit of the accounts of the Committee on Permanent Funds for the four years from January 1, 1911, to December 31, 1914. With the exception of one minor change, to be corrected during the present year, these accounts were found to be in proper form so far as the actual cash is concerned. Certain income, according to the Auditing Committee, has been omitted from the cash receipts, but this income we understand has all been accounted for and is now included in the books.

"Under the caption of 'Personal Accounts,' certain loans are included which undoubtedly will never be realized upon. We understand that this asset will be largely reduced by charging off during the current year such loans as are thought to be bad.

"We certify that the following balance sheets of the Permanent Funds agree with the books."

We annex hereto the report of Harvey S. Chase and Company, including the financial statements made by them.

Respectfully submitted,

(Signed) JOSEPH H. KNIGHT.

MERTON L. EMERSON.

STATEMENT

December 31, 1914

<i>Resources</i>		<i>Liabilities</i>	
Cash,	\$633.23	Notes payable,	\$1,000.00
Life membership,	150.00	Accts. payable: A. A.,	8.12
Accts. receivable: A. A.,	315.65	Accts. payable: REVIEW,	764.42
Accts. receivable: REVIEW,	470.17	Class of 1910,	289.49
Furniture and fixtures,	202.27	Banquet 1915,	135.00
M. I. T. buttons and seals	41.90	Dues in advance,	192.00
Inventory (supplies, A. A.),	108.50	Subscriptions in advance,	191.00
Inventory (REVIEW paper),	146.70	Sustaining membership in	
		advance,	128.00
	\$2,068.42	Tech Clubs Associated,	13.34
Excess of liabilities over re-			
sources,	652.95		
	\$2,721.37		\$2,721.37

Report of the Secretary-Treasurer

265

A. A. Expense

Banquet, 1914,	\$66.85
Car fare, express, etc.,	25.00
Collection expense,	21.29
Council expense,	100.07
Committee on Coöperation with the Commonwealth,	492.02
Field manager (traveling),	141.72
Labor,	1,949.30
Mimeograph supplies,	39.06
Miscellaneous expense,	167.76
"Pops," 1914,	24.55
Postage and printing,	1,222.32
Secretary's salary,	500.00
Tech Show, 1914,	12.00
Stationery and supplies,	157.11
Telephone and telegraph,	21.45
Traveling expense,	32.45
10 per cent depreciation on furniture and fixtures,	22.47
	<hr/>
	\$4,995.42

A. A. Income

Sustaining membership,	\$1,402.00
Dues, 1914,	3,814.00
Gifts and back dues,	382.50
Interest and discount,	61.40
Profit and loss on labor,	506.75
Profit and loss on mimeo- graph,	248.33
Profit and loss on stationery and supplies,	74.96
	<hr/>
	\$6,489.94

Review Expense

Editor's salary,	\$1,000.00
Labor,	673.34
Paper,	1,564.68
Printing, illustration and postage,	3,207.91
Supplies and telephone,	80.60
Advertising,	358.90
	<hr/>
	\$6,885.43

Review Income

Subscriptions, 1914,	\$3,422.00
Advertising,	2,455.88
Special subscriptions and cash sales,	80.86
	<hr/>
	\$5,958.74

Total expense, \$11,880.85

Total income, \$12,448.68

Deficit, 1911.....	\$334.70
Deficit, 1912.....	196.74
Deficit, 1913.....	689.34

\$13,101.63

Income, 1914..... 12,448.68

Net deficit, January 1,
1915, \$652.95

REPORT OF THE COMMITTEE ON PERMANENT FUNDS, JANUARY 25,
1915.

The Committee on Permanent Funds submits herewith its financial report, duly audited by Messrs. Harvey S. Chase & Co.

This committee was created by vote of the Alumni Council in 1910, and through a change in the constitution of the Alumni Association, under which the moneys theretofore held by the trustees of the Alumni Fund and the Life Membership Fund, were consolidated with the William Barton Rogers Scholarship Fund. The monies of these three funds were invested (with the exception of certain Technology Club bonds held by the Life Membership Fund and the Alumni Fund) in approved bonds.

As a result, the average income from the capital has increased from a considerably lower return received from savings banks and other sources to an average of 5.16 per cent per annum.

Coincident with this rearrangement of funds, the treasurer of the committee made a special effort to have some of the former beneficiaries of the William Barton Rogers Scholarship Fund pay back their loans, and met with considerable success. A continued effort has been made since that time, and as will be seen by the financial report, the amount of loans paid back has increased each year, the interest paid on the loans has been larger, and the amount loaned from the William Barton Rogers Scholarship Fund has also increased during the past four years.

Carrying out the general policy of the Alumni Association the treasurer of that body has been appointed treasurer of the Committee on Permanent Funds.

Respectfully submitted,

ROBERT H. RICHARDS.

JAMES P. MUNROE.

STATEMENT OF FUNDS, JANUARY 1, 1915

<i>Assets</i>		<i>Liabilities</i>	
Cash in bank,	\$278.87	Rogers Scholarship capital,	\$9,098.44
Bonds,	19,895.00	Rogers Scholarship loan ac-	
Personal accounts,	9,335.00	count,	12,199.53
Income in suspense,	750.00	Alumni Fund,	925.64
		Life Membership Fund,	8,035.26
	<hr/>		<hr/>
	\$30,258.87		\$30,258.87

ALUMNI FUND

The following is a statement of the Alumni Fund to December 31, 1914, from which it appears that the payments to date have been \$290,434.11, and that in addition we have received income amounting to \$8,692.65.

Included in our receipts is \$700.00 raised outside the Alumni by a special New York committee.

The expenses of the Alumni Fund Committee to date have amounted to \$7,321.49, but this does not appear in the account as these expenses are paid by the Institute.

Of our subscriptions, \$20,000 was subscribed with the special condition that it should be applied to the Fund then being raised to pay the balance due on the land for the new site.

All money received is immediately turned over to the treasurer of the Massachusetts Institute of Technology, and the assets specified are in his hands.

EVERETT MORSS, *Chairman.*

STATEMENT M. I. T. ALUMNI FUND TO DECEMBER 31, 1914

Subscriptions to October 1, 1914.....	\$228,425.00
Subscriptions October 1-December 31.....	62,009.11
Income from investments and deposits.....	8,692.65
	<hr/>
	\$299,126.76
Disposition of Funds:	
Paid on account new site.....	\$20,000.00
Time deposit.....	90,000.00
Loans.....	76,000.00
Investments.....	99,900.00
Bank balance.....	13,226.76
	<hr/>
	\$299,126.76
Subscriptions-2643 subscribers.....	\$500,465.88
Payments on account.....	290,434.11
	<hr/>
Balance now due.....	\$210,031.77

REPORT OF THE WALKER MEMORIAL FUND, JANUARY 1, 1915.

Subscriptions received by treasurer of Alumni Committee,	\$83,258.34
Interest,	1,354.03
Subscriptions received by treasurer of the Institute,	11,863.34
Interest on Fund after investment to January 1, 1915,	56,348.92
	<hr/>
	\$152,824.63

Expenses

Bills paid by treasurer of the Alumni Committee,	\$2,704.25	
Bills paid by treasurer of the Institute,	1,332.10	
	<hr/>	
Total bills paid,	4,036.35	
Less appropriation of Association,	600.00	
	<hr/>	3,436.35
Balance in hands of Alumni Committee,		2,458.12
Balance in hands of treasurer of Institute,		146,930.16
		<hr/>
		\$152,824.63

H. W. TYLER, *Chairman.*

MISCELLANEOUS CLIPPINGS

State universities were natural enough in the newer states of the middle and far West where an educational system had to be established from the bottom up, and where the passing of years had not resulted in the establishment of many heavily endowed colleges. **A State University** Possibly there was a place for such a school in Maine, although there is room for debate on this point.

But if ever there was a state which does not need a state university, that state is Massachusetts. The commonwealth is full of colleges, large and small, located in city and in country, and many of them famous from one end of this country to the other, and even in foreign lands. Such colleges are equipped for the doing of every service which Massachusetts may rightly ask shall be done for her young people. And many of them, like Harvard and Technology for instance, are fitted to do a work with which the work of no state institution could ever compare. If the state had more money than it knew what to do with, if the demand were not becoming ever louder that the state tax shall be lowered, a state college might be considered possible, although even then the establishment of one would be foolishness. But under present conditions even that is out of the question. What nonsense it is, then, for men to be putting forward such a proposition every few years!

What Massachusetts should plan to do, if it is necessary to strengthen her system of education, is to devise means by which the higher education may more easily be secured by any deserving young man or woman. The various colleges now have many scholarships without which students would not be able to complete their education. The state might establish its own system of scholarships, awarding these to those who passed the best examinations, and assigning the students to the particular institution which would best serve them. It is along some such line as this that practical measures are to be taken in this state, if anything at all is done.
—*Newburyport News*.

The refusal of the State Board of Education to indorse the state university project was to be expected.

Enough at the Top Our commonwealth already has within its borders Harvard University, Boston University, Clark University, Amherst College, Boston College, Williams College, Holy Cross College, Tufts College and Massachusetts Agricultural College.

The best of technical training is provided by the Massachusetts Institute of Technology and the Worcester Polytechnic Institute.

Radcliffe, Wellesley, Mt. Holyoke, Simmons, Smith and Wheaton serve the young women admirably.

We have law schools, medical schools, dental schools and schools of theology.

"In view of the extent and variety of existing facilities for higher education and of the possibilities of putting the resources of the colleges and universities more fully at the command of the people, and because of the urgent demands on the treasury for the financial support of elementary, secondary and vocational training," says the board in a special report, "the establishment of state institutions in addition to and duplicating existing institutions of higher learning is unwarranted."

Overseers, trustees and members of faculties are adapting themselves and the educational plants progressively to the economic and social needs of the Commonwealth, which is the thing most required at the present time.—*Boston Globe*.

One of the interesting features prepared at the Technology convention at Pittsburgh on Friday and Saturday was a graphic presentation of the student government at the Massachusetts Institute of Technology. The charts showed for the central feature the Institute committee. This is a student body composed of a representative, usually the treasurer of every activity. The group is regularly organized and meets at frequent intervals, inviting to confer with it two or three selected alumni, men of successful business, who advise but do not vote. One at a time the Institute committee has extended its influence over the different activities until now practically all are represented in its councils. The Institute committee has introduced among the societies uniform systems of accounting, and the treasurers exhibit their accounts at the successive meetings. To make still more regular the methods of the student activities uniform receipt blanks, vouchers, checks and the like have been adopted.—*Springfield Republican*.

Two thoughts are suggested by the news that Charles M. Spofford, Hayward professor and head of the department of civil and sanitary engineering at the Massachusetts Institute of Technology, has been named adviser for the city of Cambridge. The first concerns the opportunities for cities to benefit by the special training of their own residents. Any town which is the seat of a great institute of learning—particularly if that institution be a technical college—is in a position to profit by the experience of certain members of the faculty. It is not to be inferred from this that any city

Tech Student Exhibit

Engineers as City Advisers

should seek to do away with the services of a consulting engineer, but in deciding upon broad questions of policy the advice of citizens who are specially qualified to express opinions will be of inestimable value to any administration which is in office to promote the best interests of the community and not for personal gain. The other thought occasioned by Professor Spofford's appointment is one of gratification that a technically trained man has been selected to take an active part in public affairs. People are just beginning to realize that the engineer is responsible for the physical development of the community and consequently is an indispensable member of certain municipal executive bodies. It is interesting to note that Professor Spofford, a technical man, was selected by the mayor of Cambridge as a member of a board to give advice on some vexed matters of taxation.—*Engineering Record*.

There is a new thing in what may be regarded as a sort of university extension. It is called the "Rochester Experiment" and is becoming adopted in some of the first schools in the country. Thus the Massachusetts Institute of Technology announces that a member of the Faculty will meet students an hour a day to discuss whatever may be difficult to them in their studies. This is called the "Rochester" hour.

The Rochester Experiment It appears that the Technology Club of Rochester is made up of persons interested in the various industries of the city, notably the camera and optical works, and it has been the practice of the club to have some expert talk once in a while for an hour to the employees in these different industries, giving them free instruction with reference to the difficulties that they meet or the information they desire in connection with their work.

It needs no argument to see the value of such an hour of conversation between professors and students in the technical school or between the working heads of shops and the hands that are connected with them.

In Buffalo the Technical High School is doing grand work and the new Normal School is reaching forward into the field of normal instruction of a practical kind, as well as literary and scientific, and there is no doubt that with the expansion of the university there will be further opportunity for such instruction as benefits one of the first industrial cities of the United States.

School work, however, is not exactly the Rochester experiment, but rather the talk hour between chief mechanics and those who are assisting. But it all relates to a grand forward movement of industry that in due time will insure the permanent peace of the world and such a measure of general prosperity as the best minds have been working for these many centuries.—*Buffalo Evening News*.

While the negotiations in England were not progressing very favorably for a government loan of \$7,500,000 for the aid of a national aniline dye company, Mr. Arthur D. Little of Boston was speaking in Washington before the Chamber of Commerce of the United States on the dye situation in America. He traced in detail the development of the industry in Germany and "its peculiarly powerful appeal to the imagination," and showed the folly of plunging "into an industrial warfare against the most strongly fortified industrial position in the world."

In the last half century a "sweeping revolution has been effected in the art of dyeing." Such vegetable dyes as logwood, such animal dyes as cochineal and the mineral pigments, have been displaced almost completely by the products of synthetic chemistry. The coal-tar color industry "has attained its present great development and delicately adjusted organization mainly through the genius of a few and the plodding industry of many German chemists, the far-sighted courage of German financiers and the technical and business sagacity of German managers. It is in a very real sense a created industry brought into being by the reaction of intellect upon the black chaos of coal-tar." It is more highly organized than any other industry in the world, producing more than 900 separate products and over 300 so-called intermediates, and yet the adjustment of the economic balance is so close that a slight change in the value of some one product may disarrange whole processes and affect disastrously many products. A great German dye plant means forty-two miles of railroad within its grounds, a consumption of 10,000,000,000 gallons of water a year and more than 10,000 names on its payrolls.

Mr. Little says "were our own manufacturers to secure the entire American business it would amount to only about \$10,000,000 annually, a little more than the candy sold by the Woolworth stores." Thus he reaches his conclusion that "we can have such an industry whenever we are prepared to pay the price, but," he asks, "is it worth the price?" His answer is "No," and he goes on to suggest fields which even "our gigantic and shameful wastes" offer for the development of industries comparable with that color industry which Germany has made in fifty years of steady and patient toil.—*Boston Transcript*.

BOOK REVIEWS

AIR, WATER AND FOOD. From a Sanitary Standpoint. By Alpheus G. Woodman '97, and John F. Norton, '06, of the Massachusetts Institute of Technology. New York: John Wiley & Sons, Inc., 1914. 8vo.; 248 pp.; illustrated. Price, \$2 net.

The three previous editions of this text-book have been favorably received, and as the present edition embodies the various advances that have been made in analytical methods it should meet with a like kindly reception. Originally written from the "missionary" standpoint, it has come into somewhat wide use as a text for colleges and technical schools. In it the three great essentials of our human existence are discussed in their relationship to health. Known facts are interpreted in an unprejudiced manner, and analytical methods take up much of the allotted space. Upon all the subjects dealt with, a wider and surer knowledge is a crying necessity, and the work is deserving of a growing circle of readers that shall pass on its teachings to the lasting benefit of their communities.—*Scientific American Supplement*.

THE PANAMA CANAL. Comprising Its History and Construction, and Its Relation to the Navy, International Law and Commerce. By Reuben E. Bakenhus, '96, Harry S. Knapp and Emery R. Johnson. New York: John Wiley & Sons, Inc.

While many volumes have been written about the Panama Canal there obviously is room for one which makes clear in brief but complete form all the matters mentioned in the sub-title of the volume. Many tables and illustrations illuminate and adorn this volume. Mr. Bakenhus, public works officer at the Boston Navy Yard, formerly of the Faculty of the Massachusetts Institute of Technology, writes the first, and to most laymen the most interesting, part of the volume upon the history and construction of the canal, all of which he describes in lucid and attractive form.

Just at this time, as the formal ceremonies of opening the canal have been postponed from March to July, the Culebra Cut, which caused the delay, is most prominently in the public eye. The French began work on the cut January 20, 1882, and with the exception of six years from 1889 to 1895 the work of excavation has been in continuous progress for more than thirty-two years. Very large areas are involved in the slides. West Culebra slide covers sixty-eight acres and involves excavation of more than 11,000,000 cubic yards, the East Culebra slide covers fifty-five acres and an excavation of 8,000,000 cubic yards, while Cucuracha covered fifty acres and involved excavation of 5,300,000 cubic yards. "New slides may develop or old ones extend. But the slides are usually slow to develop and the material can be rapidly excavated should any occur." Mr. Bakenhus covers the story of the sanitation of the Isthmus, probably the greatest of its kind the world ever knew. Up to June 30, 1913, it had cost \$16,250,000. This chapter covers also the cost of the canal as a whole and gives various details of the expenditures. The writer shows

a bit of resentment because civilian engineers were first selected to handle the construction of the canal, and he rejoices more as he records that the work later was put in charge of army and navy engineers.

How much the canal may affect the navy is considered by Captain Knapp, a difficult topic which he discusses in a conservative and impressive manner. He believes the canal will permit a reduction of what would be a proper naval force for the United States, but he regards as extravagant certain statements that the waterway will treble or even double the efficiency of the navy. He outlines certain plans which may be recommended to the statesmen in Washington who are considering the problem of national defence, for they are sound and obviously based on real knowledge of requirements to maintain various great international policies. Commercially the canal will save time and therefore money on freight shipments, and Professor Johnson, who writes a logical chapter on this phase of the canal's value, believes it will have a tendency to reduce also transcontinental rail freight rates. Several illuminating tables are important parts of this chapter. The writer estimates the total revenue of the canal for 1915-16 at \$12,600,000; for 1920 at \$16,012,800, and for 1925 at \$20,400,000. It is calculated that \$20,750,000 will be required annually to make the canal commercially self-supporting. The writer predicts that the present rate of \$1.20 per net ton will be reduced within ten years to one dollar, and he argues that exemption of the owners of coastwise ships from tolls would have been an unnecessary and unwise subsidy.—*Boston Transcript*.

MECHANISM OF STEAM ENGINES. By Walter H. Jones, S. B., Assistant Professor in the Department of Mechanical Engineering, Massachusetts Institute of Technology, and Myron W. Dole, S. B., Instructor in Mechanical Engineering, Massachusetts Institute of Technology. Cloth, 6 x 9 in.; 170 pages; 183 illustrations. New York: John Wiley & Sons, Inc. \$2.

This book is an elementary treatise on the kinematics of the steam engine, with no mention of the heat theory or use of the steam tables. There is a brief general chapter on the various types of engines, with a description of the steam-engine indicator and its use. Chapter 2 is devoted to single valve engines and various valves are described with drawings showing the position of the valve at various parts of the stroke. The Zeuner, Bilgram and Reuleux diagrams and the valve ellipse are explained in chapter 3 and frequent use of them is made in sections on slide-valve problems, governing devices for single-valve engines, and riding cutoff valves. Chapter 7 describes various multi-valve engines and chapter 8, various hand-operating reversing gears, such as are found on locomotives and on marine engines. Chapter 9 is a rather brief but good chapter on valve setting and is followed by two chapters on the steam turbine and its valves and governing devices.

The book is well adapted for use between a course in elementary mechanism and courses on steam-engine theory and practice, and although primarily intended for use with students in a technical school, it is an excellent book for the operating engineer who wishes to become familiar with valve diagrams, and it has many practical points that cover questions such as are asked of candidates for first class and second class engineers' licenses.—*Engineering Record*.

NEWS FROM THE CLASSES

1868.

ROBERT H. RICHARDS, *Sec.*, 32 Eliot St., Jamaica Plain, Mass.

At the meeting of the American Institute of Mining Engineers in New York City, a luncheon of Technology men attending that meeting was arranged on February 15 at the Technology Club, New York City. We had present at the lunch: H. O. Hofman, Faculty, R. H. Sweetser, '92, Boyd Dudley, Jr., '12, L. T. Buell, '05, G. A. Packard, '90, H. D. Hibbard, '77, C. W. Goodale, '75, R. H. Richards, '68. We compared notes on what we had been doing the last few years and discussed the various activities of the Institute of Technology. At this meeting a new departure was inaugurated taking the registration of members by the colleges to which they belonged and the list is as follows:—Columbia University School of Mines, 56; Massachusetts Institute of Technology, 27; Michigan College of Mines, 21; Harvard University, 16; Lehigh University, 15; Yale College, 12; Colorado School of Mines, 7; University of Pennsylvania, 7; Lafayette College, 7; Penn. State College, 5; Royal School of Mines, Freiburg, Saxony, 4; University of Pittsburg, 4; Rensselaer College, 4; University of Michigan, 4; Princeton University, 3; University of Missouri, 3; University of California, 3; Case School of Applied Science, 2; Johns Hopkins University, 2; University of Minnesota, 2; Worcester Polytechnic Institute, 2; Victoria University, Manchester, England, 2; University of West Virginia, 2; Carnegie Institute of Technology, 2; Ohio State University, 2; University of Wisconsin, 2; Brown University, 1; Cornell University, 1; South Dakota School of Mines, 1; University of Vermont, 1; Washington and Jefferson, 1; McGill University, 1; Stevens Institute of Technology, 1; U. S. N. Academy, 1; Purdue University, 1.

This list shows Technology well up and near the top and when we consider that New York is the home town of Columbia and also chief centre of finance and of mining in the United States, it is not to be wondered at that Columbia greatly led the other institutions.

At the Pittsburgh meeting of the alumni a special lunch was held for the former mining students of the Institute. At this lunch there were present: S. Badlam, '00, C. W. Goodale, '75, G. Faunce, '82, C. S. Robinson, '84, S. Motch, '94, M. A. Grossman, '11, F. Crabtree, '89, H. M. Cowper, '05, G. L. Norris, '87, K. J. Steiner, '97, A. L. Davis, '98, B. S. Wohlgemuth, '10, R. H. Richards, '68.

At the lunch of the mining course men, C. S. Robinson, '84, said: "Tech men as a rule have no peer in character for honesty,

perseverance, common sense and energy. Some people say honesty is the best policy, I say honesty is the only policy. The men just starting need a certain amount of humanizing, must not expect advancement at once, must not watch the time too closely lest they should give a minute more than they are paid for. Must not expect to reform the world right off."—G. Faunce, '82, added to the above that the men had to get rid of the "I know it all" attitude.—S. Badlam, '00, added that he must know where to look to find things.—F. Crabtree, '89, thought that he must be a gentleman; that harmony in the organization was of tremendous importance. A too successful boy feels his oats too much and will disrupt the organization.—C. W. Goodale, '75, said school should give applications with the theoretical teaching; for example, with descriptive geometry should go discussion of extra lateral rights, tremendously important. That the men should be practiced on writing intelligent reports.—C. S. Robinson, '84, thought men ought to undergo physical examination to show them able to stand exposure.—G. L. Norris, '87, emphasized need of practice in writing reports; thought when jobs were easily obtained men were too inclined to jump from one to another.—F. Crabtree thought the men were not broad enough; did not see all sides.—G. L. Norris believes in visits to works in small groups, to get more intimate knowledge of works; large groups get only superficial knowledge.—S. Badlam suggested turning the men loose summers without a cent. Tell him to dig. A young man does not see a thing in dollars and cents; ought to get that view. He says H. H. Campbell listening to a proposition for improvement from him said "How much does it cost?" "You don't know?" "Go find out."—C. W. Goodale recommended the young man to start low and work up. If he is favored and starts too high he will always miss the beginning experience.—C. S. Koch, '98, had to attend the chemical lunch but he submitted these remarks: Young men should not be advisers to students at Tech, they have not the experience needed. Heads of courses should submit to this duty. The sales departments must come into hands of scientific men who have acquired the sales instinct; highest efficiency is only gained this way. A student should be started on many lines with interest aroused in them all. He will follow up in his reading all those lines and become more and more expert all the time; lines not started in school are not likely to start later.—A. L. Davis brought out the two methods of developing organization, *one* to have all the men hate one another. This is not uncommon, but gives very poor results. The *other*, all the men working together for one common end, weekly or monthly meeting to compare notes to see where losses are, where gains can be made. This gives the finest results.—By a unanimous vote of the board of directors of the chamber of commerce, John M. Little, trustee, philanthropist and retired merchant, was elected treasurer of that organization for the cur-

rent year to fill the vacancy caused by the death of Daniel D. Morss. Mr. Little has been chairman of the committee on finance of the chamber for a number of years, is now serving his third year as a director, and last year was second vice-president.

On completing his education at the Institute, Mr. Little became associated with his father in the dry goods commission house of James L. Little & Co., of which he later became head. Of this estate he is at the present time managing trustee.

Since the reorganization of the chamber, the treasurership has carried with it a salary, but Mr. Little has requested that this salary be turned back into the funds of the chamber as long as he holds the office.

1875.

E. A. W. HAMMATT, *Sec.*, 15 Water Street, Newton Centre, Mass.

The annual meeting of the class was held at Young's Hotel, Boston, on February 26, 1915, at 6.30 p. m. with Professor Charles R. Cross as our guest.

The first man (after the secretary) to appear was Frank P. Tenney, it being his first attendance at one of our meetings. Perhaps this is accounted for by the fact that until within a few weeks I did not know his address. Others soon came in and among them Lewis from Philadelphia and Goodale from Butte. After a social hour or so, the executive committee's report, in the form of dinner was presented, and there were seated at the table the following men:—Professor Cross, Aspinwall, Beal, Bowers, Dorr, Goodale, Hammatt, Hibbard, Lewis, Lincoln, Mixter, Nickerson, Plimpton, Ruddick, Stoddard and Tenney. At 9 p. m. President Hibbard called to order for the business meeting. The records of the previous meeting were read and approved, and the report of the secretary-treasurer was accepted and ordered placed on file. Letters from several of the boys expressing regret at inability to be present were read, among them one from Edes, who hoped many of the old friends would visit San Francisco during the year and said it would be a good thing if more eastern people would visit Alaska, as such a visit would remove many wrong impressions. Voted, that the secretary be ordered to cast a ballot, as that of the class, for the reelection of the old board of officers; which was done and they were declared elected. President Hibbard with a few remarks reminiscent and otherwise presented as our guest Professor Cross, who was received with the Tech cheer and three XXX. Professor Cross spoke of the old days, recalling to our minds many of the professors, and incidents which occurred while we were students; referred to the effect upon science of the discovery of radio-activity, and spoke of some of the changes which had occurred at the Institute during the past forty years, especially in the manner of presenting the subject to the student. He remarked that physics had been completely revolutionized,

and replying to the question whether the men today worked as hard as we did, said that they came better prepared, and so were able to do more in the same time. Goodale in referring to old days at Tech called to mind that often some subjects were in the course, for which the student could see no practical application, with the result that he took little interest in them, and did not make much effort to understand them; and cited in his own case descriptive geometry. Since he has been in active work in mining, however, he has found that it has a practical application and, at times, a very important one. He thought it would be well if the professors could be impressed with the importance of clearly showing to a student the practical application of the subject taught to his professional work, and thereby enlisting his interest in the subject. He then described some of the changes which had occurred in methods of firing furnaces used in treating the ores, and referred to the "Safety first" movement among the mines at Butte. Next he spoke of the recent meeting of the Technology Clubs Associated at Pittsburgh, where '75 was represented by himself and T. H. Bakewell, our first class president, and submitted for inspection the silver cup awarded him at Pittsburgh as the long distance man. He also told of some of Shockley's travels in Europe, Asia, Africa and South America and said he asked him why he had not written some magazine articles based on what he had seen. Shockley replied that he had done so, but the articles were returned. Shortly after, he read in a magazine an article referring to the same section of country, full of sensational matter, and entirely untrue, but that was the kind of stuff the magazines wanted so he gave it up.

Warren is reported as being in California.—Edgar R. Hills has been located, being in business in Boston and living in West Newton.—Walter J. Paine is living in Newtonville, and Tenney at Manchester, Mass.

It is expected that the new class book and directory will be ready for distribution about April 1.

1877.

RICHARD A. HALE, *Sec.*, Lawrence, Mass.

Frederic J. Brown of Woburn is a representative to the Massachusetts General Court from the 20th Middlesex District. His experience on the school board and also on the board of aldermen at Woburn is of value in connection with various matters of legislation. He is on one of the most important committees of the legislature, that of Metropolitan affairs, which has many interesting bills to consider. He has a Boston office with the O. D. C. Company at 33 West street.

The thirty-eighth annual dinner of the class was held Wednesday evening, March 4, at the Engineers Club, Boston. Presi-

dent Herbert Jaques presided. There were fourteen members present, as follows:

William B. Bradford, draftsman, U. S. Navy Yard, Charlestown; E. W. Davis, in the publishing business, Boston; W. E. Fairbanks, with J. A. Ferrell & Company, Boston; Joseph P. Gray, president of the Boston Manufacturers' Mutual Fire Insurance Company, Boston; R. A. Hale, consulting engineer, Lawrence; Walter Jenney, president Jenney Refining Company, South Boston; Herbert Jaques, of Andrews, Jaques & Rantoul, architects, Boston; C. H. Norton, assistant engineer Massachusetts Highway Commission; C. F. Lawton, commissioner of public works, New Bedford; C. H. Peabody, professor of naval architecture and marine engineering, Massachusetts Institute of Technology; Arthur L. Plimpton, engineer in charge of surface lines, Boston Elevated company; F. I. Sherman, civil engineer, West Mansfield; H. A. Southworth, in business, Stoughton, Mass.; I. M. Story, engineer, right of way department, New York, New Haven & Hartford railroad.

The business meeting was held and resulted in the reelection of Herbert Jaques, president; B. T. Williston, vice-president; R. A. Hale, secretary and treasurer. B. T. Williston was elected as representative of the class to the Alumni Council. There were no formal speeches after the dinner, but general conversation and exchange of reminiscences occupied the remainder of the evening.

Announcement was made of the death of A. S. Locke of Waltham, and of L. M. Davis, president of Northern Briquetting Company, Minot, North Dakota, both members of the association. Mr. Davis was born in New Bedford, but had spent most of his life in the west and was a leading citizen of Minot, where he had been president of the Commercial Club and one of the first members of the Park board.

George L. Flint, Reading, Mass., was elected water and light commissioner in March, 1915.

—Charles F. Lawton, who has been superintendent of streets and commissioner of public works of New Bedford since 1894, has resigned, owing to political changes in the administration. In a letter to the New Bedford *Standard* he states:

I am rather pleased that the leaders of this administration did not desire my services at the head of the street department. Under their management of city affairs I shall, no doubt, be happier out than in.

Lawton is intending to take a long vacation following his retirement April 1, but his long experience and success in the line of work with which he has been identified should cause his services to be in demand.

Charles B. Wheelock has been reelected as commodore of the Corinthian Yacht Club for the fourth time. The club has had a most successful season and Mr. Wheelock has been active in the club affairs. He has a fast boat which has shown good results in the races.—B. T. Williston has been selected from the class for

representative to the Alumni Council to take the place of Walter Jenney who was obliged to resign on account of other engagements.

In response to a request from the State Board of Labor and Industry to the Boston Society of Civil Engineers, a committee was appointed to confer and advise with the board in regard to regulations for toilet facilities in industrial establishments. The committee consisted of Robert Spurr Weston, '93, chairman; R. A. Hale, '77, and George A. Carpenter, city engineer of Pawtucket, R. I. The committee visited various establishments and considered the regulations proposed by the sanitary engineer of the board and made their report which was submitted for general discussion by the sanitary section of the Boston Society of Civil Engineers and approved and sent to the board. A very appreciative letter of acknowledgment and thanks was received from the commission.

This is one of the examples of coöperation between the Commonwealth and the technically-trained men which is desired and mutually helpful.

ALONZO STEVENS LOCKE

After a prolonged illness, the conscious part of which was borne with most exemplary cheerfulness and patience, Alonzo Stevens Locke passed into the eternal life on Sunday afternoon, December 27, 1914. Many months ago he received a paralytic shock which seemed to have succeeded an accident he met with some time previously, and from that time his condition grew slowly but continuously worse. For the past few months he had been confined to the house and its immediate vicinity and for two weeks he has been entirely unconscious of his surroundings. The end came as merciful relief from a condition as hopeless for him as it was distressing to his friends.

He was the son of Samuel E. and Harriet Fletcher Locke and was born in Waltham, November 13, 1847. He attended the public schools of Waltham and was a graduate of the Waltham High School. He took also a short course of two years at the Institute of Technology. His father was superintendent of the gas company up to 1874 and Alonzo assisted him in his spare moments. He afterwards entered the employ of the American Watch Company in what was known as the Nashua department, and continued in the company's employ until failing health prevented further manual labor.

He was married June 13, 1878, to Miss Clara I., daughter of William A. and Letitia Pratt. She passed away several years ago. One son, Ernest L., was born to them and survives his parents.

Mr. Locke was a member of long standing of the Universalist Church and Society and for many years the parish clerk, his resignation being accepted only when the performance of the duties became impossible. He was an enthusiastic member of the Masonic fraternity, taking his Symbolic degrees in Monitor Lodge in 1869 and subsequently receiving the degrees and membership in Waltham Royal Arch Chapter, Adoniram Council, Royal and Select Masters, and Gethsemane Commandery, Knights Templar. In Monitor Lodge he soon became an appointive officer and in 1888 was elected Junior Warden, 1890 Senior Warden and in 1892 Worshipful Master, serving in the East two years. In 1896 he was elected secretary and held the office some fourteen years, resigning because he no longer desired to hold the position. He became a life member in 1899.

He was a man of the most exemplary habits, always cheerful, of the strictest integrity, making many friends and losing none. Funeral services were held at the Universalist Church Wednesday afternoon.



H. WARD LEONARD, '83

1881.

FRANK E. CAME, *Sec.*, Metcalfe Apts., Westmount, Quebec, P. Q.
FRANK H. BRIGGS, *Asst. Sec.*, 146 Summer Street, Boston, Mass.

"Hans" Allen, Fred Walsh, "Tippy" Winslow, Ed. Lewis and Frank H. Briggs had the '81 table at the annual alumni dinner. Dawson of '86 also sat with them.

George Mower has Panel No. 81 in the Stein Room at Technology Club. Barnes has the one next to it, and Abbott also has a hook in the same room.—Duff and Darlington both have sons at M. I. T. now.

1882.

WALTER B. SNOW, *Sec.*, 136 Federal Street, Boston, Mass.

The thirty-third anniversary dinner was held at the Engineers Club on Saturday, February 13, with the following members in attendance: French, Hall, Herrick, Jenkins, Lewis, Low, Munroe, John H. Ross, Henry F. Ross, Snow, Strickland, Walker and Warren. Snelling, who fully expected to be present, and Low, who came over from New York, are both active in their new interests; Snelling having launched himself out in moving pictures as a side issue, and Low being enthusiastic over a new mail order enterprise. On account of their health neither Cochran nor Hersey were able to attend, but Henry F. and John H. Ross, and Strickland, who had not been able to meet with the class for some time, were doubly welcome. Letters of regret were received and read from Carson, Faunce, Cheney, Rosing, Wood, and Thompson.

George W. Mansfield is now with the Central Stevedoring Company, Erie, Pa.—The present address of Frank M. Channing (formerly Frank C. Morrison) is 340 Twelfth avenue, San Francisco, Cal.—Edgar B. Thompson has returned to the West, where he is now located at 425 Chicago avenue, Oak Park, Ill.—Mr. and Mrs. James P. Munroe announced the marriage of their daughter Katherine to Mr. Frederic L. Day, on January 9.

1883.

HARVEY STUART CHASE, *Sec.*, 84 State Street, Boston, Mass.

H. Ward Leonard, '83, of Bronxville, N. Y., died suddenly during the banquet of the American Institute of Electrical Engineers at the Hotel Astor, New York City, February 18, 1915. Apparently in good health, he was stricken just as he was about to enter the banquet hall. His wife and sister were with him.

If one of the older graduates of the Massachusetts Institute of Technology were asked to name the most brilliant and versatile man among the graduates of the Institute, there would immediately rise before him in memory the handsome face and commanding

figure of H. Ward Leonard. Leonard was a man of distinguished appearance and most attractive personality. At the Institute he was a leader in such activities as existed in his time. After leaving the Institute he pushed rapidly forward in whatever line of engineering or business he undertook. Aggressive and resourceful he was eminently successful as a constructor, inventor, organizer, manager and manufacturer.

Leonard was born in Cincinnati, February 8, 1861, and was a descendant of John Alden. Solomon Leonard, another ancestor, with John Alden and Miles Standish established Duxbury, the first settlement out of Plymouth. Mr. Leonard's great grandfather was Gen. Artemas Ward, who on May 19, 1775, was appointed commander-in-chief of the forces raised by Massachusetts.

Leonard completed his course at the Institute in 1883, in mining, but while pursuing this course he also took extra work in electricity. The following year he was associated with Thomas Edison, who had just produced the incandescent lamp and was developing a lighting system. Edison displayed his genius by surrounding himself with a coterie of brilliant young men of mathematical scientific training to aid him in this work. At this wonderful school of electrical engineering, where all the work was research work, Leonard must have absorbed much of the spirit of the "Old Man," as Edison was lovingly called. He certainly had, in an extraordinary degree, the faculty of going for results the shortest and most direct way, and the only thing that put a limit to his success as an engineer was his greater taste for business.

In 1886 Leonard became general superintendent of the Western Edison Company, a corporation with headquarters at Chicago, having exclusive control of Edison business in Chicago and several surrounding states. The following year the Western Edison Company was merged into the parent company and Leonard organized the firm of Leonard & Izard which had the agency of the Edison Company for the old Western Edison Company's territory (excepting Chicago), and also did an extensive construction business; in fact, installing nearly all the important isolated lighting plants and central stations in the territory tributary to Chicago. His firm was also a pioneer in electric power and railway installation. In 1889 the firm was bought out by the Edison interests and Leonard became general manager of the new combination which, as the "United Edison Company," controlled (with the exception of certain local companies) all the Edison interests in the United States and Canada. Soon, however, Leonard was devoting himself to his own inventions and running his own business. He was the founder of the H. Ward Leonard Manufacturing Company of Bronxville, and patented more than 100 inventions, many of which were very important and of great commercial value. Among the more important are those relating to electrically driven reversible rolling mills, electric mine hoists, locomotives, elevators, gasoline-

electric trucks, transmission gearing for motor cars, rheostats, automatic electric lighting systems for railway trains and motor cars, electric distributing systems and boosters. Perhaps his best known invention was the Ward Leonard system of motor control. The value of this system of control was demonstrated in battle during the Spanish-American war, where it was used on the U. S. S. *Brooklyn*. After the war it was generally adopted by the United States Navy, and with a few unimportant exceptions all of the ships are now equipped with it. From its use in this connection it is most commonly known as the "Turret Control System." His system of "regenerative braking" has been extensively applied to mine hoists and is likely to be an important factor in future railroad operations. Another of Leonard's inventions is the double-arm circuit-breaker which has come into almost universal use. Other important inventions are his lighting system for trains and automobiles and his form of change gear, which is now used in high grade motor cars. His system of motor control was applied to the moving sidewalk at the Paris Exposition of 1900 after many ineffectual attempts to operate it by other methods and was a feature of that exposition.

For electrical-research work the Franklin Institute of Philadelphia in 1903 conferred upon Mr. Leonard the John Scott Medal. He was also awarded gold medals at the Paris Exposition in 1900 and at the St. Louis Exposition in 1904. Mr. Leonard was a frequent contributor to scientific societies and to the technical press. He was a life member and fellow of the American Institute of Electrical Engineers, and served that body as vice-president, manager and as a member of the Edison Medal committee. He was also a member of the Inventors' Guild and of the New York Electrical Society and numerous New York social clubs. In 1895 Mr. Leonard married Miss Carolyn Good.—R. H. PIERCE, '85.

The sudden death of H. Ward Leonard, February 18, 1915, was a tremendous shock to those who were fellow-students with him at the Institute in the early 80's. The beginnings of social betterment among the students, which occurred about this time, were largely due to his influence and those who were associated with him in the various student activities. He was a picturesque figure in undergraduate affairs of the time, an important and historic period in the history of the Institute. He possessed generalship of the highest order and ability to enlist the effort of others in his enterprises.

Leonard's aggressiveness, although generally tactful, stirred up more or less opposition, and perhaps there was never a time at the Institute when there was so much keen interest taken in student matters by the general body of undergraduates. It was largely due to Leonard's influence that *The Tech* was started. The mass meeting of the students, which provided for its existence, was called and presided over by him.

It was at this period, and largely due to Leonard, that the institution known as the V. L. Club was born. It was originally started as an eating club. The initials "V. L.," the significance of which was jealously guarded, stood for "five-dollar limit" and the club quickly found a congenial rendezvous at the Carrolton Hotel, corner of Church and Providence streets. There were some fifteen or twenty members of the club, and in addition there were a number of "special section" members who, although congenial spirits, did not choose to take meals regularly with the club. Every man in the club was an officer. Leonard was "S. M. Your Highness," the Grand Panjandrum of the outfit, and his resourcefulness as a leader was taxed to its fullest limit by the ingenious devices of the minds bent on creating peculiar situations. It is doubtful if there has ever existed in the precincts of Boston a more typically Bohemian crowd than this same V. L. outfit. It is a pity that the atmosphere and the setting cannot be reproduced on paper.

To the students of the Institute at that time the news of Leonard's death will be received with deep regret. That his life and activities meant much to the development of the social side of Institute life, no one can doubt.

A number of letters have been received since Leonard's death from which we present a few paragraphs.

Extract from a letter from Frank Tenney, '83, Philadelphia, Pa.:

As you probably know, Leonard did not enter with the class of '83 but appeared at the laboratory at the beginning of the sophomore year, October 1, 1880. His personality was such that it was only a short time before he was as well known to the class in general as those who had been with it from the beginning, and I believe he soon had a larger acquaintance with the upper classmen than any of the other fellows. The first year he roomed with a man named Sterns from Cincinnati, who was in the class of '81, at a house that was located where the Public Library now stands. His second year he roomed with C. H. Tompkins of our class, on Boylston street, and his last year he had rooms on Charles street with C. Morris Wilder of the class of '86. He had a brilliant mind and could prepare his lessons in half the time that was usually required. He had little sympathy for the routine work, which he felt was unnecessary. I think it was for this reason that he antagonized some of the under instructors and assistants which lost him his degree at graduation. Those who knew him felt that if anyone in the class was entitled to a degree he was the one. He was later given a degree for work he had done subsequent to graduation.

He was most public-spirited not only in class affairs but anything that pertained to the Institute. He was, I always considered, the originator of *The Tech* which you will recall was started during our time at the Institute. He also was the originator of the 2G Society, which was the only secret society at that time, and it was restricted to those taking the mining course. He was interested in athletics and a member of the football team which had an active though short life. It was during the game with Yale that he received an injury which caused water on the knee and made it necessary for him to use crutches for two or three months. He also started a fencing class that was short-lived.

Extract from a letter from John P. Harding, '85, Springfield, Mass.:

I had not seen much of Leonard since we left Tech so many years since, but how well I remember him in the old days of the "V. L." Club. Dear old "Leinhardt," as we used to call him, sat at the head of the table from the beginning of the club

and was the life and soul of it. None of us who sat about that long table in the old Carrolton can ever forget him.

Leonard had a nature that was exceptionally friendly and attractive, and was a born leader in whatever he undertook. It seemed, as I look back upon the "long ago," that nearly everything of a social nature found Leonard in its midst, and one might easily have predicted his success in after life.

What a pity that a man like him should be taken away in the full prime of his manhood.

Extract from a letter from John G. Eppendorff, '83, Buffalo, N. Y.:

Our class, '83, has, within the year, sustained the loss of two able men who took the mining course while at Tech, C. H. Tompkins, Jr., and H. Ward Leonard. They were not only closely associated in their classes, but were roommates for two years or more, occupying the top story of one of the houses on Boylston street, just below Berkeley. Both men I knew well, having been associated with them in forming the famous "V. L." club, whose reputation at one time was rather under a cloud, as it was supposed to be a wicked secret society, while in fact it was nothing more than a dining club and the letters merely stood for "\$5.00 limit," the sum beyond which we agreed not to go, in spite of the many protests of our landlady, Mrs. Carrol of the Carrolton Hotel.

Tompkins was one of the most lovable men I ever knew, quiet, gentle and refined, but firm and with a will of his own, and with a keen sense of humor. He was reserved and not very many men knew him intimately while at the Tech, but those in whom he did confide were staunch and loyal friends for life. For many years after graduation, he represented his father's interests in the Idaho Mining and Irrigation Company near Boise City, Idaho, and then, when that enterprise was abandoned through lack of English capital, he took his father's place as president of the Diamond Rock Drill Company, with headquarters in New York. While neither of us was a good correspondent, we met year after year on exactly the same footing as in college days and his death last spring was a very great blow to me. He married in 1898 Miss Lillian Arnold and his home for several years had been in Plainfield, N. J.

H. Ward Leonard was distinctly of the opposite type. He was self-assertive and somewhat aggressive, a brilliant talker, with a keen mind that quickly grasped the essentials of the problem in hand. I think we all felt that here was a man who in after life would be successful, not only in his own specialty, electricity, but as a man of the world and in the business affairs. He was decidedly the most brilliant scholar in the class, but things came so easily to him, that he did not always exert himself as he should have, and in the senior year he failed to obtain his degree with the others. This was, however, awarded to him later in life.

This fact, however, did not prevent him from obtaining a good position with Edison soon after graduation and since then, one success has followed another, and the royalties on his numerous patented inventions gave him a very handsome income.

I last saw him in the summer of 1913, when we were both away on our vacations, and he seemed hardly to have changed in the last ten or fifteen years. His mind was keen and alert and he had the same clever personality and the same merry twinkle in his eye. Generous towards his friends, almost lavish at times, yet without ostentation, he formed part of an interesting group of successful men at Bronxville, N. Y., where he resided during the winter.

1884.

HARRY W. TYLER, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

A recent letter from Wilmington announces that du Pont is gaining rapidly since his removal from the hospital at Minnesota to a sanitarium and that there is ground for hope that he may soon be better than for a number of years past.

A recent press clipping gives interesting details of a racing motor boat now building for du Pont from designs by Adolph Apel, succeeding the *Tech Jr.*, which did some sensational work three years ago. The new boat will be a hydroplane on the Apel patent wave collecting type, driven by a 240-horsepower, 8 cylinder Sterling motor with a propeller shaft geared to the engine. It is reported that Apel has guaranteed a speed of fifty miles an hour, and he is to receive a premium for every quarter of a mile by which the boat exceeds that speed.

Another press clipping states that Puffer has been retained to make a special investigation of the subway and rapid transit lines in New York, with special attention to electrical installations, signals, methods of ventilation, fire protection, emergency exits and other conditions affecting public safety.

—Herbert Otis is again at his home on Fisher avenue, Brookline, after prolonged absence on account of illness. He is much improved in health.—The annual dinner of the Alumni Association was attended by Appleton, French, Gill, Lull, Stuart, Mrs. Tyler and the secretary.

—Taking advantage of Newell's visit to Boston, Bridgman, Doane, Gill, Mellen and Tyler lunched with him at the Technology Club on Tuesday, March 16.

1885.

I. W. LITCHFIELD, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

The class of '85 had the third largest attendance at the alumni dinner, January 9, at the Somerset. Those present were Means, Dick Pierce, Plaisted, Pratt, Little, Talbot, Merrill, Henry Williams, Nye, Tenney White, Eaton, Frazer, Morss, Litchfield, and Frank Spinney of Lynn, whom we welcomed for the first time in many years. At the Technology Clubs Associated in Pittsburgh the class had one of the largest delegations coming from a distance, three of them from Boston and one from New York. Richards came from New York, and Eaton, Talbot and Litchfield from Boston.

The secretary had the pleasure of meeting Tracy Lyon at a recent meeting of the Detroit Technology Association. Tracy is well and is looking forward with eager anxiety to the thirtieth anniversary of the class this spring.—Everett Morss had two high honors conferred upon him during January: He was made a director of the First National Bank, and was foreman of the Mansfield jury.—Bob Richardson came on from Kansas City to Boston the last of February and spent a couple of days in town.—'85 has four men on the Alumni Council: Morss, representing the Detroit Technology Association; Homer, representing the Technology Club of Rhode Island; Eaton, as representative-at-large; and Litchfield, representing the class.—George P. Vanier, of Steelton, Pa., has been awarded a certificate of merit by The Franklin Institute,

Philadelphia, Pa., for his potash bulb. This bulb has been particularly designed for use in the determination, in industrial laboratories, of the total carbon in iron or steel. Vanier is chief chemist of the Pennsylvania Steel Company, Steelton, Pa. He has also designed zinc tubes and sulphuric acid bulbs for use in connection with the Vanier combustion train for the determination of carbon in steel by the direct combustion method with the electric furnace.

The second of a course of free public lectures on engineering work of the State of New York, which is being given by the Technology Club of Albany in coöperation with the State Department of Education, was given by Alex McKim, state inspector of docks and dams, on February 16, at the Education Building in Albany. The subject of the lecture was "Inspection and Supervision of Dams in New York State." The address was illustrated.—Fred Newell came on from Washington on March 16, to address the Civil Engineering Society of the Institute, and gave an address that will long be remembered by the young men who heard him. His lecture was illustrated by a large number of slides showing the construction of several of the larger dams and irrigating projects throughout the west. This included the Roosevelt Dam in Arizona, which impounds a body of water twenty-five miles long at the head of South River, and irrigates 200,000 acres of land by means of a network of canals. This land was formerly barren and cactus ridden, but it is now producing incredibly large crops of many kinds, especially alfalfa, and is worth several hundred dollars an acre for orchard use. Mr. Newell emphasized the point that the Reclamation Service was not primarily a commercial project, or an engineering feat alone, but its aim was to furnish homes and additional means of gaining a livelihood to the people of the United States. Incidentally he said that the work furnished a partial solution of the Indian problem. On the Roosevelt Dam a large number of Apache Indians were employed with profit to all those concerned. This tribe had hitherto been the worst of the "bad" Indians, but their employment on labor to which they were suited, quieted their discontent.—The thirtieth anniversary dinner of the class will be held at Young's Hotel on the Saturday before Easter, April 3. As president of the class, Charlie Eaton has invited every member to be his guest on this memorable occasion and has expressed the hope that it will be the largest meeting the class has ever had.

Arthur Little has gone South where he will read a paper before the New Orleans meeting of the American Chemical Society on April 3. On April 5, he will be given a luncheon on the occasion of the chemists meeting in Atlanta, Ga.

Probably the most interesting address made before the Chamber of Commerce of the United States of America at its meeting in Washington in February, was that of Arthur Little on "The

Dyestuff Situation and its Lesson." An editorial referring to this will be found in the department of miscellaneous clippings in this issue of the REVIEW. Little reviews the dyestuff situation very clearly but briefly, and shows that the whole situation of effective production of this class of goods in Germany depends for its commercial efficiency upon the close correlation and inter-dependence of the many products. He says that "the industry is self-contained. It makes its own crudes and converts its own wastes into raw material for new processes to be applied to them by itself. The adjustment of the economic balance is so close that a slight change in the value of some one product may disarrange whole processes and affect disastrously many products." The larger portion of the interest is in the hands of four great German companies, and the industry is closely bound together by trade agreements and co-operative arrangements. The wages paid are low, and the plant investment, related to output, is extremely high. Although the German plants produce about \$80,000,000 worth from plants valued at approximately \$400,000,000. There are over 912 products; and, if we take out a few of the very important ones, the average annual production for the remaining 900 is \$41,000. He further said that if our own manufacturers were to secure the entire American business, it would only amount to a little more than the value of the candy sold at the Woolworth stores. In closing his address Mr. Little says:

The plain underlying reason why we have been unable during thirty years of tariff protection to develop in this country an independent and self-contained coal-tar color industry, while during the same period the Germans have magnificently succeeded, is to be found in the failure of our manufacturers and capitalists to realize the creative power and earning capacity of industrial research. This power and this capacity have been recognized by Germany, and on them as corner stones her industries are based. As a result, the German color plants are now quite capable of meeting the demands of the whole world when peace is once restored. Why, then, should we duplicate them only to plunge into an industrial warfare against the most strongly fortified industrial position in the world? Let us rather console ourselves with a few reflections and then see how otherwise we might spend our money to our better advantage.

The gross business of the Woolworth five- and ten-cent stores in 1913 exceeded the entire export business of the whole German coal-tar color industry by \$11,000,000. The sales of one mail-order house, Sears, Roebuck & Co., in the same year were far greater than the total output of all these German color plants, and its last special dividend is about twice the amount of their total dividend payment in 1913. The Eastman Kodak Company with about twice the capital of the largest German color company, the Badische, and with a government suit on its hands, earned during 1913 net profits of over \$14,000,000, or 230 per cent. on its preferred stock and over 70 per cent. on its common, while the Badische, with "the benevolent and appreciative support" of the German government, earned 45 per cent. In that year the entire German industry paid \$11,000,000 in dividends. The Ford Motor Company, with one standardized product, does a greater annual business than all the German color plants with their twelve hundred products, and earns four times their combined dividend while paying three times their wages.

Now that our perspective is adjusted let us consider for a moment some of the things which might be done with the vast expenditure of effort, money, and research required to establish in this country this "one-nation" industry.

We should first of all review our own almost boundless natural resources, and especially should we consider our gigantic and shameful wastes. They offer opportunity for the ultimate development of a score of industries, each of a magnitude comparable to the color industry of Germany, and for the almost immediate up-building of hundreds of smaller enterprises relatively no less profitable. We waste, for instance, one hundred and fifty million tons of wood a year, a billion feet of natural gas a day, millions of tons of flax straw at every harvest; untouched peat deposits fringe our entire Atlantic seaboard; beehive coke ovens flame for miles in Pennsylvania, wasting precious ammonia, and excite no comment, while the burning of a thousand-dollar house would draw a mob. The whole South is a reservoir of industrial wealth, untrapped in any proper sense. We have heard these things so often that we can go to sleep while hearing them. We need to really sense them to get before our consciousness a clear conception of what they actually mean in terms of wasted wealth and present opportunity. When we do this—and there is no better time than now—let us apply the lesson of the German coal-tar color industry to these far greater problems, and solve them by the compelling agency of sustained, intensive research.

To take one illustration only, the application to the lumber industry of the South, of one-tenth the research energy and skill which were required to bring the coal-tar chemical industries to their present proud preëminence would unquestionably result in the creation of a whole series of great interlocking industries, each more profitable than that of lumbering. The South would be in a position to dominate the paper market of the world, it would transport denatured alcohol by pipe line and tank steamer, make thousands of tons a day of carbohydrate cattle feeds, reorganize and develop along new lines and to far better purpose its languishing naval stores industry, and find new opportunity at every hand. To do these things in one industry, and many things as good in other industries, requires only a little faith, sustained, courageous effort, and the appreciation by American financiers of the earning power of research.

1888.

WILLIAM G. SNOW, *Sec.*, 24 Milk Street, Boston, Mass.

Horn, Belser and Blodgett attended the Technology reunion in Pittsburgh in February.—William H. Blood, Jr., gave a talk before the Tech Mechanical Engineering Society on "Some Suggestions for the Making of Examinations and Reports." Blood has had a very wide experience in these matters in connection with his work with Stone & Webster.—A. F. Mead recently celebrated his silver wedding at 27 Jason street, Arlington, Mass.—Albert F. Holden, who will be remembered as a football star while taking a special course at Tech, died in Cleveland, O., in December last and left to that city fifty acres of ground in Lakeview Cemetery for a resting place for men who have done much for the nation or for the state of Ohio. He was graduated from Harvard and became very successful as a mining engineer and manager of properties.—Stephen Child, landscape architect and engineer, has spent the winter in San Francisco.—Edwin S. Webster was elected in March as a life member of the Corporation of the Institute. He was president of the Alumni Association in 1909 and the following year was elected a term member of the Corporation. His term was to expire in April.—J. Edward Fuller is a member of the Massachusetts State House Building Commission. Among recent large building contracts he has taken for the George A. Fuller Company is the Wellesley College Dormi-

tory.—B. R. T. Collins of the Spray Engineering Company has changed his headquarters to 93 Federal street, Boston.—Charles H. Mower of the Compagnie Sturtevant, Paris writes:

I have just received a copy of the January TECHNOLOGY REVIEW and note with much pleasure the account given of the Sturtevant War Letters. I think these will become more interesting as time goes on, as we shall have a larger and larger number of our employees in the active fighting line. Of course, almost all of our English employees have been training for the last six months, but now they are being shipped over, and it will not be long before they will have, I am sure, very interesting experiences.

1889.

WALTER H. KILHAM, Sec., 9 Park Street, Boston, Mass.

The annual dinner and reunion was held at the University Club on January 25. Eighteen members were present. As Thurber, our perpetual president, could not be present, Wiliston presided, showing his customary grace and usual tact in handling the difficult situations which arose, caused by the unwonted absence of certain prominent members of the class, and the necessity of taking formal notice of these delinquents. It was voted to invite Dr. W. H. Walker, professor of chemical engineering at the Institute, to become an honorary member of the class. This invitation, later was extended to him by the secretary, who is glad to state that Dr. Walker accepted, giving us now two honorary members. F. A. Smythe was designated to be a committee of one to represent the class at the Pittsburgh reunion. It was decided that the annual dinner would hereafter be held on the second Tuesday in March, unless the administration decides that sufficient reasons exist for changing the day. Other minor business (?) was transacted, after which Henry Howard entertained the class with further reminiscences of his visits to the German Emperor and the King of Spain, in the course of which he disclosed certain interesting conversations which were hitherto unknown to the class, and Whiting described some of his adventures while bear hunting in Thibet.

The *Journal* of the Ohio Society of Mechanical, Electrical and Steam Engineers contains a reprint of an interesting paper presented at its thirtieth meeting by F. E. Sanborn on "Technical Museums." Sanborn points out that where England has a technical museum for every 58,000 square miles, Scotland one for every 30,000 and Ireland one for every 33,000, the United States contains only one for 2,970,000 square miles.—The *Boston Herald* of January 7, 1915 contains an account of the marriage of John Hyde of Bath, Me., son of John S. Hyde, president of the Bath Iron Works, to Miss Eleanor Boyd of Newton. Mr. Hyde is a graduate of Williams College, class of '12. He formerly lived in Boston, but now lives in Bath, where he is the president of the Colonial Club and associated with his father in business.

The sympathy of the class is extended to Beals in the loss of his daughter, Helen Drake Beals, who died recently.

1890.

GEORGE L. GILMORE, *Sec.*, Lexington, Mass.

Wisner Martin is of the firm Martin & Freethy, architects, at 141 Milk street, Boston, Mass.—At the annual alumni dinner in Boston January 9, the following members of the class of '90 were present:—Atwood, Bartlett, Burley, DeWolf, Ellis, Gilmore, Noyes, Packard, Roots, Royce, and Wason.—Willard Roots is now located at Cherry Valley, Mass., where he is doing missionary work.—The address of Moses Lyman, Jr., has been changed to 60 Avon place, Springfield, Mass.—George L. Parmelee is at 3 Parmelee street, Boston, Mass.—Edward S. Holmes is with the Western Electric Company, 500 South Clinton street, Chicago, Ill. Arthur W. Ayer is at 157 Highland avenue, Somerville, Mass.—A wedding was noted of the son of John S. Hyde at Bath, Maine, on January 6.—A. W. Woodman was made president of the reorganized Joliet Bridge and Iron Company.—H. A. Kennicott since 1912 has been indulging in agriculture in Nebraska, but is considering returning to structural engineering.—W. B. Flint is now a resident engineer for the Vandergrift Works of the American Sheet and Tin Plate Company at Vandergrift, Pa.—George A. Packard was one of the speakers at the weekly dinner of the City Club in Boston, January 28, and gave a talk on "Mining Engineering," and made suggestions of necessary mining laws and financial aid that should come from Congress.—On Friday noon, January 29, DeWolf, Goodwin, Gilmore, Packard, and Spaulding met for an informal lunch at the Engineers Club and talked over general matters relative to our coming reunion and further issues of the *Ninety Tea Kettle*.—At the alumni reunion in Pittsburgh the following members of the class of '90 were present:—F. A. Dodge, W. B. Flint, F. A. McDonald, H. L. Noyes, H. M. Waite, and E. D. Walker. The class luncheon was held with the members of the class of '89 that were present. "Chic" Waite was one of the speakers at the banquet.—At a hearing on the reorganization bill of the B. & M. trustees, February 3, E. F. Dwelley, formerly a municipal engineer of Lynn, stated among other remarks that he did not fear a receivership for the railroad, but thought it the most speedy way of adjusting the matter.—At the meeting of the National Association of Stationary Engineers at Los Angeles, Cal., in August, Gardner T. Voorhees, refrigeration engineer, gave an illustrated lecture on "Multiple Effect Compressive Devices, and Multiple Effect Receiver." He also gave a general talk on "Refrigeration," illustrating his remarks with blackboard work and many lantern slides. At the third International Congress on refrigeration, Voorhees read a paper on the critical point of CO₂, the possible new state of matter.—On February 13 "Chic" Waite was a speaker at the Men's Forum in Binghamton, N. Y. About five hundred were present to hear him talk. The talk

was on the same line as the one recently given in Boston, and needless to say proved most interesting to the audience, composed largely of business men.

In the town of Albion, N. Y., there has recently been an overturn in the town government, and as a result Schuyler Hazard has been elected president of the village, receiving nearly two votes to one for his opponent. The town has gotten its back up and has decided that all politics be kept out of the village affairs, and in the election of Hazard to this office, they feel that a step in the right direction has been taken.

Among the duties that will fall under him will be the installation of a new water system, and also of a large amount of work in the way of improving the highways. Schuyler was elected for a three year term, and it is evidently the intention that the town shall be run entirely on business principles, and under business methods. He is undoubtedly the best qualified man in the town for the position, as his engineering knowledge, and his being the manager of the largest corporation of Orleans County, fit him to fill the position in the most satisfactory manner. Hazard is also in charge of the work of building the Arnold Gregory Memorial Hospital, and the entire matter is practically left in his hands to employ architects and use his best judgment on the work. On February 25 the annual banquet of the Albion Chamber of Commerce was held, at which Mayor-elect Hazard was one of the guests and speakers.—Laurence J. Carmalt is with the Central New England Railway at Hartford, Conn.—Charles W. Dawson is now at 412-414 Iowa Bldg., Muskogee, Okla.—Gorham A. Gilman's residence is 53 Ward street, Newton Center, Mass.—Frederick E. Harnden is now with Messrs. Phelps Dodge and Company, at Douglas, Ariz.—Burdett Moody is with the South Coast Land Company, Carlsbad, San Diego County, Cal.—Edgar V. Seeler is at 101 So. Juniper street, Philadelphia, Pa.—Prof. Elton D. Walker's residence is now 138 So. Atherton street, State College, Pa.—It has been suggested that possibly some members of the class of ninety may visit the Panama-Pacific Exposition in California this year, and if so, it would be pleasant for them possibly to go together or meet while there. Any members intending to visit the exposition are requested to write to our classmate, Charles H. Alden, Jr., care of Panama-Pacific Exposition Company, San Francisco, Cal., who would be very glad to meet any members while on the visit. He suggests that October would be a good month, if any intend to go.—It was learned in Wilmington, Feb. 27, that Gen. T. Coleman du Pont, president of the Du Pont Powder Company, had sold his holdings in the company to a syndicate headed by Pierre S. du Pont, acting president for most of the last seven years. The price paid is said to have been about \$20,000,000. General du Pont retires because of ill health, but will continue as president of the

Equitable Office Building Corporation of New York. It is understood that no outside interests are included in the deal.

People who live on a purely vegetarian diet have been found to be not quite so well nourished as those who include meat in their habitual bill of fare, according to a Federal Government report by Dr. Franklin W. White in a free lecture recently given at the Harvard Medical School on "Food."

The government's observation was made in California in a colony where only nuts and fruits were eaten. Doctor White thinks that Americans have undoubtedly had too much of the meat diet, but that probably the present high prices will have a good result in limiting meat consumption within reasonable limits.

"The most nourishing foods of a given quantity," said Doctor White, "are olive oil and milk, yet a teaspoonful of olive oil equals in nourishment a tumbler of milk.

"Beef teas and clam bouillon are of little value to the sick save as an appetizer. They have slight food value, containing not the essence of the article they are made of, but only its taste. A favorite nourishment for the convalescent is white of egg and water, yet a glass of milk has a nutritive value of eight times as much as egg water.

"One glass of milk is as good as 20 glasses of soup or broth. Half and half milk and cream are much more nourishing than plain milk. Milk is one of the cheapest of foods, considering its food value, for 20 cents' worth of milk a day would furnish all the nourishment needed by the average person.

"A small slice of bread and butter contains twice as much nutriment as a slice of beef and is of the same value as half a tumbler of milk or a plate of beans, or a saucer and a half of cereal. It would require 20 tumblers of beef tea to equal the food value of a single slice of bread and butter.

"Though starches and sugar are entirely absorbed by the body, most vegetables contain a deal of fibre that is not absorbed. Beef and eggs and other animal foods are absorbed to a greater degree than vegetables. A certain amount of vegetables and fruit are desirable on account of their waste material, which up to a certain point is good in bowel troubles.

"Radishes, celery, lettuce and string beans contain little of value. Whole wheat bread contains little if any more nutriment than that made of bolted flour, and the bran in the whole wheat is absolutely indigestible. The prices of food have little relation to food value. The cheapest domestic cheese is as nourishing as high-priced foreign brands.

"Cheap cuts of beef, milk, smoked fish, cereals and rice give the best return in nutrition for the money spent. Milk is a food and not a drink, and should be taken with crackers, bread or cereal to aid in the process of digestion.

"Nuts are a very concentrated food, containing various materials needed in well-balanced quantities. But they must be carefully and thoroughly masticated or they will prove indigestible. Cooking renders fruit and vegetables much more digestible. The more meats are cooked the less digestible they are.

"Any foods costing less than 25 cents a pound that are used as a substitute for meat are well enough, but if a substitute costs from 25 to 75 cents a pound, the purchaser does not get his money's worth. Butter and cream have a greater nutritive value than cod liver oil, and cost about one-fifth as much."

1891.

H. C. FORBES, *Sec.*, 88 Broad Street, Boston, Mass.

Among the five men, who have freely given their time and thought for a year and a half to the problem of a general building law, is Fred A. Wilson. The state building commission's re-

port is now available for distribution. The passage of this act which is being recommended by the commission, will do much toward establishing sanitary housing and safety against fires. A Boston paper says:

The report covers 160 pages, and yet, by a logical layout in large divisions and small sections, it avoids repetition and confusion. Viewed in its main merits, apart from debatable details, the proposed law deserves praise for two salient points: It reconciles the responsibility and local freedom of the several towns and cities with such a state-wide uniformity as builders and architects and public officials have long desired; it also simplifies and centers the present system of control through numerous offices more or less overlapping in authority and duties.

1892.

W. A. JOHNSTON, *Sec.*, Mass. Inst. of Tech, Boston, Mass.

C. H. CHASE, *Asst. Sec.*, Tufts College, Mass.

The secretary has received the following address changes, as of January 1, 1915, from the Alumni Office: Miss Bertha M. Brown, 15 Hazelton St., Dorchester, Mass.—Wm. C. Capron, 700 Main St., Anaconda, Mont.—Richard D. Chase, 607 Purchase St., New Bedford, Mass.—Wm. Y. Chute, 738 McKnight Bldg., Second Ave. and Fifth St., Montrose Rd., Chicago, Ill.—Joshua Crane, 50 State St., Boston, Mass.—Henry Y. Gilson, Windham Depot, N. H.—Frederick H. Meserve, 79 Leonard St., New York, N. Y.—Eugene E. Pettie, 493 Commercial St., Portland, Me.—Arthur C. Smith, University Farm, St. Paul, Minn.

The following members of the class were present at the Pittsburgh meeting of the Technology Clubs Associated February 19 and 20: Ely, Kales, Litchfield, W. D., Palmer, Phillips and A. G. Pierce, all of whom helped to make the occasion a pleasant one for those attending. Pierce served on the course luncheon committee, Phillips on the banquet committee and Ely on the hospitality committee.

W. Spencer Hutchinson has taken more commodious quarters for his office in Boston and may now be found in 1021 State Mutual Building, 50 Congress street. Hutchinson also writes of having received a visit from A. A. Pollard, who is now in 843 Security Bank Building, Minneapolis, Minn.—At the last convention of the New England Water Works Association, Leonard Metcalf was elected president for the next year. Metcalf has just returned from an eighteen months' trip to the West, most of his time having been spent in California where he has been employed as an expert hydraulic engineer in connection with the immense hydraulic projects that are now being worked out in that locality. Metcalf reports having met Murray Warner, Dubois and Harvey during his stay there.

1893.

FREDERIC H. FAY, *Sec.*, 308 Boylston Street, Boston, Mass.
GEORGE B. GLIDDEN, *Ass't Sec.*, 551 Tremont Street, Boston, Mass.

The occasion of Farwell Bemis's talk before the Engineers Club, Boston, on the evening of February 25, was seized as a good opportunity to hold an informal class meeting and dinner. When the other members were seated at table, Bemis appeared in the full costume of an Indian potentate or other notable of rank. His talk, which was given before the club at large as well as the class, was upon India, and described his experiences and impressions received in that country last year while making a trip around the world. By supplementing his talk with a large number of interesting lantern views, Bemis gave his audience a good idea of the customs and manners of the various peoples of that country, as well as a glimpse of the architectural beauty which it contains. He also gave a brief description of the jute industry there, in which he is particularly interested.

The '93 men present that evening were: A. F. Bemis, S. N. Braman, H. N. Dawes, F. H. Fay, G. B. Glidden, J. C. Hawley, A. L. Kendall, H. M. Latham, W. B. Page, F. D. Smith, C. W. Taintor and J. F. Tomfohrde.

Bemis is one of the seven directors recently elected by the Boston Chamber of Commerce. The following item concerning him recently appeared in the Chambers Bulletin, *Current Affairs*:

"Albert Farwell Bemis, president of the Bemis Brothers Bag Company, 40 Central street, served on the Chamber Committee on Wage Earners' Insurance in 1910 and on the Committee on Banking and Currency in 1912. He is a director of the Boott Mills and the National Association of Cotton Manufactures. A graduate of the Massachusetts Institute of Technology in 1893, he served for several years as president of its alumni association, and was recently elected a life member of the Corporation. He has been for four years an alderman of Newton, and is a member of the First Corps of Cadets, the Country, Twentieth Century, University and other clubs. He has been a member of the Chamber since June, 1909."—Edward M. Hagar has resigned as president of the Universal Portland Cement Company, one of the subsidiaries of the United States Steel Corporation, to assume the presidency of a new company which he is forming to acquire a chain of cement plants covering a large part of the country. Details regarding the new organization have not been announced; it is understood the headquarters will be in Chicago. Hagar has been the head of the Universal Company, or its predecessor the Cement Department of the Illinois Steel Company, since the first barrel of cement was turned out in 1900. In the first year the production was 30,000 barrels, while the capacity today is approximately 12,000,000 barrels per annum. The company has plants in oper-

ation at Chicago, Buffington, Indiana, and Pittsburgh, with a new mill at Duluth nearing completion.

After graduating from the Institute, Hagar took a post-graduate course at Cornell, receiving in 1894 the degree of M. M. E. For a time he was manager of the Chicago office of the Southwark Foundry and Machine Company, engine builders of Philadelphia. In 1897 he organized the firm of Edward M. Hagar and Company of Chicago, and for three years conducted a business as sales representative for machinery manufactures. Hagar was for two years president of the Association of American Portland Cement Manufactures. He also founded the Cement Products Exhibition Company, which conducts the annual cement shows. Hagar is a member of the American Society of Mechanical Engineers, the American Society of Civil Engineers, the American Institute of Mining Engineers, the Western Society of Engineers, and numerous clubs in Chicago, New York, Pittsburgh, Boston, and elsewhere.—Augustus B. Wadsworth, M. D., is director of the Division of Laboratories and Research of the New York State Department of Health.—The marriage is announced of Miss Charlotte Josephine Lisman, daughter of Mrs. Anthony Albert Lisman, of Mount Vernon, New York, to Fenwick Fenton Skinner on Saturday afternoon, March 20, 1915. After May 1, Mr. and Mrs. Skinner will be at home at 165 Park Avenue, Mount Vernon, New York.

The following address changes have been received: Richard E. Belden, 154 Broad St., New London, Conn.—Robert S. Burbank, Red River Lumber Co., Westwood, Cal.—Geo. A. Caldwell, Am. Tel. & Tel. Co., 24 Walker St., New York, N. Y.—Geo. S. Carney, 300 Chestnut St., Philadelphia, Pa.—Wilfred A. Clapp, Quartermaster Corps, Ft. McDowell, Cal.—Thos. C. Clarke, Niagara Coke Corp., 6 Church St., New York, N. Y.—John S. Codman, 50 Congress St., Boston Mass.—Clarence D. Gilchrist care of W. T. Grant Co., 85 Market St., Lynn, Mass.—Frank B. Holmes, 940 Commonwealth Ave., Boston, Mass.—Chas. F. Morse, 215 Clinton St., Watertown, N. Y.—William S. Resor, Cumberland Tel. & Tel. Co., New Orleans, La.—Aubrey Ruggles, Freeport, Me.—John I. Solomon, care of Albert E. Solomon, 137-141 Madison Ave., New York, N. Y.—John B. Warren R. F. D. 44A, Stow, Mass.—S. Edgar Whitaker, U. S. Embassy, Guntzelstrasse 3, Berlin, Wilmersdorf, Germany.

1894.

S. C. PRESCOTT, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

William H. Sayward is one of five experts who for eighteen months have been generously giving their time and consideration to the twisted problem of a general building law. The commission's report covers 160 pages. The following is quoted from a Boston paper:

All who are concerned for economical and workmanlike construction, for safety against single fires and sweeping conflagrations, for such sanitary housing as makes for more health and fewer tuberculosis camps, will wish to learn for themselves the detailed provisions of the act whose passage the commission is recommending.

1896.

CHARLES E. LOCKE, *Sec.*, Mass. Inst. of Tech., Boston, Mass.
J. ARNOLD ROCKWELL, *Asst. Sec.*, 24 Garden Street, Cambridge,
Mass.

"Johnnie" Rockwell attended the reunion and reports a good time, although he had hoped to meet more of the '96 men. On the train between Boston and New York he ran across E. H. Barker, our famous tenor, and W. R. Hedge, both of whom were bound to New York City on business. Barker has been located in Lowell ever since 1896, and Hedge is vice-president of the Boston Mutual Fire Insurance Company. In New York, at the Technology Club, Rockwell ran across I. B. Hazelton, who was one of the artists on the '96 *Technique*, and who is now in the painting and advertising business in New York. His contribution to the decoration of the Technology Club of New York has been noted in a previous issue of the REVIEW.

At Pittsburgh the class luncheon was held at the Hotel Schenley at noon. H. K. Jones and C. W. Davis sat down with Rockwell, and in addition they had the pleasure of the company of G. M. Goodspeed of the class of '97, Course V. At the smoker that afternoon, Merryweather turned up from Cleveland and Davis had fallen out, which made a nice little trio. The banquet on Saturday night, February 20, did not have the classes seated together. The following names were on the list of those who were supposed to be present: G. S. Bowes and Mrs. Bowes, C. W. Davis, P. W. Litchfield and Mrs. Litchfield, George Merryweather, Dr. J. A. Rockwell, Conrad H. Young and Mrs. Young.

"Con" Young had invited the '96 men to accept his hospitality at the class luncheon, but unfortunately had the misfortune to lose his aunt in Florida during that week, and it was impossible for him to get together with his classmates. He had put in a lot of hard work in preparing for the Pittsburgh reunion and he regretted extremely his inability to be present and carry out his plans. The sympathy of his classmates is with him in his loss. Rockwell left Pittsburgh Saturday night and came directly back to Boston.

Report has come of the death of Mrs. W. D. Coolidge. She underwent an operation in New York and did not survive. Dr. Coolidge's loss will appear particularly hard at this time when it seems that his partner should have been spared to enjoy with him the honors he had earned.—"Charlie" Lawrence came over from New York recently, but was unable to communicate with the secretary for longer than two minutes. However, if looks are

any criterion, Lawrence is the same happy fellow as of twenty years ago. He is now associated with the American Blower Company, 141 Broadway, New York City.—“Con” Young has shifted his headquarters from New York to Pittsburgh. He was formerly manager of the Nonpareil Cork Works Division of the Armstrong Cork Company. He is now in the general office of the Armstrong Cork Company at Pittsburgh, and his particular work is in the field of developing new uses for cork and cork products. There seems to be hardly any industry in which “Con” cannot find some use for cork.—Bakenhus has written a book, associated with H. S. Knapp and E. R. Johnson, on the Panama Canal. The part covered by Bakenhus includes the history, the route, design and construction and the sanitation, costs of work, elements of success. The book is published by John Wiley & Sons, 432 Fourth avenue, New York City. It is well illustrated, and although the secretary has not seen it, it sounds like very interesting reading.—George Burgess has also been rushing into print, in fact this has become a chronic habit with him and periodically he issues a government bulletin. His latest are numbered 224, 236, and 242 of the Bureau of Standards. The first two have to do with the “Emissivity of Metals and Oxides,” and the third has to do with “Electrical Resistance and Critical Ranges of Pure Iron.”—J. Gurney Callan has not forgotten how to talk and gave an address on abrasives to the M. I. T. Chemical Society not long ago.—Professor Bradley Stoughton announces a little bit late the birth of a son, Sandrow Stoughton, who arrived September 30. Stoughton has been busy getting straightened out in his new house in New York City.—Arthur F. Woodsum, who dropped out of sight some years ago, has finally been located and is now in the machinery division of the United States Navy Yard at Portsmouth, N. H. He left Portsmouth in 1907 to engage in the electrical business in New Orleans with his brother; but the death of his brother caused the business to be given up and the return of Woodsum to Portsmouth.

A new *Register* of all the former students of the Institute is to appear this spring. The alumni office has made every effort to secure addresses of all former students including graduates and non-graduates. There still remain some for whom no address can be obtained. The following list includes the names of such men who attended the Institute between the years 1892 and 1896. If any reader can supply addresses for any of these men, or can give clues which may lead to the securing of addresses, the secretary will be very glad to hear from them: Allen, Ralph W., 1892-93; Allen, William F., 1892-93; Andrew, Frederick W., 1892-93; Blakeslee, George L., 1892-93; Bolan, Herbert A., VI; Clough, William B., 1892-93, I; Colburn, George C., 1892-93; Conant, A. Bancker, 1892-93, I; Coristine, Walter H., 1892-94, VI; Diaz, Carlos A., 1893-94; Forsythe, Robert J., 1894-95, III; Franklin,

Joseph, Jr., 1892-94, V, X; Glass, Charles L., 1893-94, Drawing; Glass, George H., Drawing; Gould, Edward P., 1892-93; Hubbard, Frank J., 1893-94, I; Hunt, Carleton R., 1892-93, V; Jaques, Frank W., 1892-93; Jones, Graham, 1893-94, IV; King, Charles A., 1894-95; Lang, Edward C., 1894-95; VI, Low, Cecil H., 1892-93, II, IX; Lyall, Amasa J., 1895-96, IV; Maynadier, C. B., 1892-93; Morgan James K., 1892-94, VI; Ownen, James M., 1892-93; Owens, Joseph F., 1893-95; Patrick, John, V, 1893; Robbins, Fred L., 1892-93; Saldana, Edwardo E., 1892-93, X; Sanford, Earl L., 1892-93; Smith, Albert C., 1894-95, V; Smith, William D., 1893-95, II; Smyth, Joseph H., 1892-94, IV; Snyder, John L., 1892-98, IV; Stamp, Charles M., 1892-95, II; Tarr, Edward G., 1892-93; Thayer, William W., Jr., 1892-93, X; Trumbull, Charles D., 1892-93, IX; Wagner, John L., 1894-95, VI; Ware, Arthur L., 1892-93; Warren, Alla H., 1895-96, II; Whitmore, John, 1895-96; Williams, Benjamin C., VI; Williams, Roland H., 1892-93, VIII; Young, Alan F., 1893-94, '96, VII.

It is not too early to begin to think about our twentieth anniversary which will come in 1916, and will coincide with one of the big five-year reunions of the Institute, provided this big reunion is not postponed again on account of business conditions or failure to have the buildings ready on the new site. A formal class meeting will undoubtedly be held in Boston in the near future to discuss this matter, and the secretary will also be glad to receive any expressions of opinion from classmates who are at some distance from Boston.

Sarah J. C. Needham who died August 30, 1914, will be remembered as a special student, taking one or two courses with '96.

The following address changes have been received: John L. Coley, Box 52, Westport, Conn.—William B. Corson, care of John Wanamaker, New York, N. Y.—Leonard M. Cotton, 922 Commonwealth Ave., Boston, Mass.—Henry Gardner, 405 Edgevale Road, Roland Park, Maryland.—Frank L. Guptill, Technology Club, Boston, Mass.—Mrs. F. W. Lee (Marion L. Lewis) care of Mrs. Lewis, Ashland, Mass.—Marshall O. Leighton, 700 Tenth St., Washington, D. C.

1897.

JOHN A. COLLINS, JR., *Sec.*, 67 Thorndyke Street, Lawrence, Mass.

A class dinner was held on December 17, at the University Club, Boston. Thirteen men were present as follows: Bradlee, Breed, Harry Sawtelle, Dougherty, Worcester, Esterbrook, Vinal, Learned, Allan Jackson, Fuller, Currier, Moore, and Dr. Marshall. After dinner those present enjoyed an entertainment, *Tam-O'Shanter*, presented by the Scottish Musical Comedy Company for the University Club.

On Friday, February 26, a reunion of '97 men was held at the Boston City Club. The following were present: Bradlee, H. F. Sawtelle, A. W. Jackson, Lawler, Learned, Currier, Atwood, Alden,

Carty and Worcester. Following the dinner the new quarters of the City Club were inspected and later bowling teams were formed, and no doubt world's records were made and unmade in the basement alleys.

As we all know Hugh Moore, who is with the Berlin Paper Company of Berlin, N. H., is a genius. His latest activity (and it seems a bit odd to associate it with a pulp and paper concern) is in turning out a vegetable substitute of lard for cooking purposes. Now don't get the idea that the new product is made from wood pulp. (It is said, however, in fact Dougherty told Ex-President Taft so at the alumni banquet, that Moore was making money out of wood pulp. The secretary offers the suggestion that he must have meant paper money, but he is not sure whether he ought to report the facts to the Secret Service Agents or not.) To come back to the original theme, Moore took out patents in December covering the process by which a pure white odorless and tasteless fat is developed from cotton seed oil. It can be used in all places where butter and lard are now employed. Furthermore, it is cheaper and will not turn rancid. Moore was kind enough to send some of us five-pound samples for trial and the same are now undergoing severe tests for tensile strength, elasticity, etc., under the direction of our respective wives. The name of this new product is Kream-Krisp. Mr. Moore will be glad to tell anyone about it who may care to write him.

At the alumni dinner in Boston the following men were present: A. W. Jackson, F. D. Jackson, Moore, Learned, Humphreys, Marshall, Alden, Dougherty. Worcester, Fuller, Breed, Burrill, Moran.

Mary Louise Foster, Smith, '91, M. I. T., '97, received the degree of Ph.D. from the University of Chicago, August, 1914. The thesis was on physiological chemistry. Miss Foster is a member of Sigma Xi, and is associate professor in the department of chemistry at Smith College.—G. H. Pratt is with the Continental Jewell Filtration Company of Jersey City.—J. M. Gilmore is now located at 46 Powder House road, Medford, Mass.

1898.

A. A. BLANCHARD, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

B. F. W. Russell has formed a partnership with J. L. Little for the practice of architecture under the firm name of Little & Russell, with offices at 45 Bromfield street, Boston.—As a result of the disturbed condition in the dyeing industries, our friend Ed. Chapin is overwhelmed with work in his line as consulting dye expert in giving advice as to what colors may be used to give the results obtained by the German products formerly used. He predicts an enormous expansion during the next five years in our own American manufacture of dyestuffs.—Hurter sells explosives for industrial purposes, and in the course of his giving

instructions in their use he has given many lectures on his subject in the mining schools.

He writes as follows:

Keeping my promise to you of the holidays, I delivered a lecture on "Explosives" at Stanford University, Palo Alto, Cal., on March 10. I am also slated for a lecture at the University of California at Berkeley on March 15. Have been having a very pleasant visit to the Coast and in particular have been very much pleased with the exhibits at the fair. The architectural detail work is magnificent. The whole thing is well worth the visit of anybody who can spare the time and stand the expense. There is hotel information bureau maintained by the city which will procure accommodations for strangers at any price they wish to pay. This is a little more than most of the other exposition cities have ever done for their visitors.

Hollis Godfrey, president of the Drexel Institute and consulting engineer, presented a paper at the American Society of Mechanical Engineers, 29 West 39th street, New York, on Tuesday, March 9, 1915, on "The Application of Engineering Methods to the Problems of the Executive Director and Trustee." The following topics were covered:

The need for an executive, etc., to have: (a) A broad comprehensive view of the whole problem; (b) such comparative information as shall make a selection between the different problems possible; (c) clarity in the expression of vital facts; (d) a regard for time saving in the consideration of facts which form the basis of policies.

We take the following from the *Boston Post* of January 26:

Maurice F. Delano of Vineyard Haven, Mass., one of the big exhibitors at the recent poultry show, is a Technology graduate of the class of '98, where he studied engineering.

Always interested in poultry (Mr. Delano tells me), this interest was sufficient to take him into the business on a large scale after he had left college; and judging from the awards he netted at the show last week, it would seem that he has been more than successful.

I know of one instance where he sold a thousand eggs during the show for 50 cents each to one party.

The following letter from Bishop relates the doings of ninety-eight at the Pittsburgh convention:

"The class of '98 surely covered itself with glory at the meeting of the Technology Clubs Associated at Pittsburgh, February 19 and 20. We had eleven men present at the class luncheon which is the largest number of any class. Although we did not have twice as many as any other class we made four times as much noise. The following men were present: A. R. Shedd, Course II, Hingham, Mass., mechanical engineer, with the Fore River Shipbuilding Company, Quincy, Mass.; H. L. Coburn, Course II, 52 Irving place, New York, engineering contractor; Stanley A. Hooker, Course II, 851 Hutchins avenue, Cincinnati, Ohio, cotton dyer and finisher; H. L. Bodwell, Course II, Vandergrift, Pa., assistant district manager, American Sheet and Tin Plate Company; Alvan L. Davis, Course III, Sewickley, Pa., manager, Crucible Milling Department at Park Works of Crucible Steel Company of America; C. S. Koch, 623 Hampton avenue,

Wilksburg, Pa., President Fort Pitt Steel Casting Company, McKeesport, Pa.; J. T. Harahan, Course II, Chicago, Ill., Middle-West Supply Company; Edgar A. Weimer, Course II, Lebanon, Pa.; H. R. Thayer, professor of structural engineering, Carnegie Institute of Technology; C. F. Drake, Course XI, superintendent of Filtration Division, Bureau of Water, Pittsburgh, Pa.; F. L. Bishop, Course VIII, Pittsburgh, Pa., dean, school of engineering, University of Pittsburgh.

We were represented on the general local committee by W. C. Fownes, Jr., and myself. As chairman of the publicity committee, I did everything possible to get some one else to do the work and I am sure that I succeeded and that every member of the committee would agree with me. We secured a considerable amount of publicity both in Pittsburgh and abroad.

At the course luncheon, '98 was in evidence in several of the discussions. These proved to be one of the most interesting features of the meeting. At the annual dinner, I believe '98 was more fully represented than any other class. Again we were the ones to lead the cheering for the different guests that were present. We did not receive the flag for the largest number registered simply because one of the other classes used political methods unknown in our day and generation and thereby secured upon the registration books two more names than we had. All in all, I think it can be said that '98 was one of the leading features in the celebration."

1899.

W. MALCOLM CORSE, *Sec.*, 106 Morris Avenue, Buffalo, N. Y.

B. S. HINCKLEY, *Asst. Sec.*, North Station, Boston, Mass.

At an informal dinner of some of the Boston members of the class held at the Engineers Club on January 19, 1915, it was decided to issue a class directory in vest pocket size, containing the alphabetical and geographical lists of members of '99. Sheak offered to do the printing and present it to the class, which was accepted unanimously.—Benj. S. Hinckley was appointed assistant class secretary to represent Corse at the Boston meetings of the Association of Class Secretaries.—The financial standing of the class January 1, 1915, was as follows:

CASH RECEIPTS			
Cash on hand January 1, 1914,		\$342.87	
Cash received for dues,	\$77.00		
Interest,	14.29	91.29	\$434.16
<hr/>			
CASH DISBURSEMENTS			
Office supplies and postage,		\$35.75	
Notices for Technology Clubs Associated,		6.16	
		<hr/>	41.91
Cash on hand January 1, 1915,			\$392.25

It was suggested by the secretary that letters be sent out from time to time during the year in an effort to get more class news.

Stanley Motch reports that the Pittsburgh meeting was a great success and that the opportunities to discuss matters pertaining to the future of the respective courses at the course luncheons was a feature of the meeting.—Timothy C. O'Hearn, who has been city electrician in Cambridge since 1903, sent his resignation to Mayor Good in March to take effect April 1. He remained until that time in order to superintend the installation of the new fire signal service in the Inman square station. O'Hearn leaves the city's service to go with an electrical firm.—The following is an extract from a letter from Walter W. Bonns, of the Missouri Botanical Garden and Shaw School of Botany of Washington University, St. Louis, Mo.:

I am on leave of absence from the California Agricultural Experiment Station, and am here, working towards a doctorate in plant physiology. My address will be as above for some time, as I am planning to stay for a while even after my furlough expires if I cannot finish my work by that time.

We are pleased to announce the marriage of William Abbott Kinsman and Mrs. Edith Corey Smith of Woonsocket, R. I.

—G. C. Winslow is general manager and chief engineer of the Somerset Street Railway, Pa., whose officers recently signed a contract for establishing trolley connections between Rockwood and Johnstown, Pa. Winslow began work on the line about six years ago. The cost of the enterprise will be approximately \$1,500,000. The following is from a Pennsylvania paper:

Express service, such as had recently been installed by the Southern Cambria company, will be inaugurated on the new line with the opening of traffic on a schedule which will permit a heavy business. There are to be four express cars, specially designed to handle produce, milk and dairy products, fresh from the Maryland markets and from the Johnstown wholesale markets. Fifteen passenger cars of modern type will be put in service in addition to the express service. It is expected that much of the express and the passenger service will be for short hauls, although the promoters based their estimates of revenues largely on through expressage and passenger traffic. The total length of the route is forty-two miles, four miles less than the distance from Johnstown to Rockwood on the Baltimore & Ohio Railroad. The distance from Rockwood to Kelso is thirty-eight miles and that much track must be built.

All steel cars of the interurban type, with side entrance, heavy and comfortable, will be used on a roadbed which is to be first class and of the most permanent character. Out of the thirty-eight miles of road about thirty-four miles is to be located on private property, with the right-of-way fenced against cattle or trespassers. One of the great advantages to passengers on a line so constructed is the absence of dust common on trolley lines following public highways.

Don't forget to return your registration card to the secretary, so that the new class list can be completed.

We regret to report the death of Ernest A. Regestein, who passed away at the Allegheny General Hospital on December 29, 1914, following an operation for stoppage of the bowels. He had been in poor health for about a year although his condition was not considered serious until about a week before his death.

The immediate cause of his death was a blood clot on the brain due to poor circulation although the operation disclosed the fact that he was suffering from cancer of the stomach. His death was no doubt hastened by over work and the continued ill health of his wife. Funeral services were held at his late residence, 547 Forest avenue, Bellevue, Pa., on December 31, after which the body was taken to Boston and services held at his parents' residence, 92 Wyman street, Jamaica Plain, on January 3. The interment was in Forest Hills Cemetery, Forest Hills, Mass.

1900.

WILLIAM R. HURD, 2d.

RICHARD WASTCOAT.

PERCY R. ZIEGLER.

INGERSOLL BOWDITCH, Sec., 111 Devonshire Street, Boston, Mass.

On February 12 a dinner was held at the Technology Union and afterwards bowling was indulged in at the Trinity Court Alleys. Thanks to Russell, an excellent dinner was served and a very enjoyable evening spent. Three teams were made up for bowling, captained by Howe, Emery and Conant, and owing to Howe's great skill, his team won.

The following were present: Allen, Burns, Bowditch, Bugbee, Burnham, Cutting, Conant, F. N. Emery, Howe, Russell, Richardson, Reardon and Wentworth. During the evening Bill Stone turned up, and took a hand at bowling. He came to Boston for a few days, and fortunately met one of the fellows who told him about the meeting. He is working on the New York State Highways, and has changed his address to 325 South Massey street, Watertown, New York. Dick Wastcoat could not come as he was moving. He has been turned out of his apartment in Taunton and has taken up his residence in a real house. Hunt came in before the dinner but could not stay.—A card addressed to P. J. Ober, 89 Forest street, Newton Highlands, has been returned to the secretary unclaimed. If anyone knows Ober's address, it is hoped he will send it to Bowditch.—Bugbee has always been considered a perfectly respectable member of the class, but evidently the officials of Nova Scotia have discovered his other side, which he has so cleverly hidden from his classmates, as the following taken from *The Tech* shows:

That the Canadian "Spy fever" has not abated was shown by the stir that arose at the Institute the other day when a telegram was received from Halifax which read: "Are one of your professors and two students at present in Nova Scotia assaying gold quartz?" It was signed by the Fortress Intelligence Officer. Upon being referred to the mining department, it was found that Professor E. E. Bugbee was really in Nova Scotia, that he had two students with him, and that he was there for the purpose of testing out a gold mine. The suspicion arose when the local men at the wharf at Halifax asked the railway officials if there was really a gold mine at Vogler's Cove, the destination of the party, and then notified the Fortress authorities. Investigations ensued, which went to show the constant

vigilance of the officials at all points; but, upon the receipt of the return telegram from the Institute, the surveillance was of course stopped.

Since that time Professor Bugbee has been trying to explain what there is in his appearance that turned him into a suspect. It has been suggested that the obvious keenness of Technology professors made the Nova Scotians think he was a sort of a Sherlock Holmes, come to ferret out their secrets.

The following is a copy of a very interesting account received from Frederick W. Snow:

Mr. A. E. Wheeler, '95, and I with his secretary and a guide, together with 120 niggers or "carriers" left here August 14 on a trip of inspection of mines. We returned December 23, having been out eighteen weeks and five days. The trip was a unique one in every way and in addition was a very valuable experience professionally. A few remarks about the trip may interest you. We cycled part of the way but the greater part of the trekking was done on foot. Our biggest cycle day was 50.6 miles into Busanga where one of the tin mines belonging to the company is located. Our trusty guide and the boys did not catch up to us for three days. Our record walk was 23 miles in one day. Not so bad for a fat man at that. We were carried "pig-a-back" over some rivers, we "canoed" over others, and waded some. We slept out in fair weather and in rainy weather. We walked through bogs and up mountains. We went without water and then we had plenty. We never ran out of grub! We didn't drink a drop. We did not have a day's sickness. We did not see any lions or tigers or leopards or elephants or ostriches or snakes or hyenas or zebras. We were in a big game country and about all of the above mentioned animals and maybe some others saw us but we did not see them. We are about the only party that ever travelled through this region without hairbreadth escapes from one or all of the aforesaid animals. This is a record of which we are very proud. Maybe the lack of liquor had something to do with it. I am not prepared to say definitely but I think that booze causes one to see things that do not always exist. One wild animal in the bush becomes ten wild animals when telling about the terrible adventure by the fireside. We saw a dozen varieties of deer, crocodile, lots of birds, millions of ants and other small game. We saw plenty of spoor of all of the above big game and plenty of droppings too but never saw the animals. This is a truthful tale.

Every white man is named by the niggers. Mr. Wheeler was called "Bwana M'Kubwa" which means "Big Master" and "Bwana Tal Tala" which means "Master Spectacles." I was called "Bwana Mafuta" which translates into "Master Fat Man" and "Bwana Chinama" which signifies "Master Fat Man who moves Fast." You are, I am sure, aware of the manner of travelling. A party moves like a circus, here today and there tomorrow. The law allows you to load a carrier with not over 50 pounds (Approx.) The boys carry everything, anywhere. It is really wonderful the feats that they perform. After trekking they put up the tents, build shelters for the goods, go out and get wood and water, cook their own food and then spend half of the night singing and dancing. The next day they are ready for more. All of our field assistants were niggers. The front and rear chainmen, the flagmen, the sampler, the stake boy, the water boy and every other kind of a boy were all colored black. They all made good, too. For this they received the magnificent sum of 65 centimes or 13 cents per day and their board. The board consisted of a kilo of mealie each day. Mealie is corn meal or meal made from the root of the cassava. They eat this with much gusto and a considerable amount of noise. They are like a camel in that they can go a long time without water.

—Z. M. Briggs has kindly contributed the following information about Tudbury, who wrote him a very interesting letter:

After leaving the Bureau of Engineering Statistics I worked in Boston for Professor Spofford and for Barrows & Breed, as designing engineer, on special railroad work. This kept me busy until September, 1913. About that time things looked

very quiet in the east and as I had always desired to see the far west, I decided it was the opportune time to start. On the way out I stopped at Chicago, and tried to find Leonard, but he was out of the state. It rained so hard that day I decided not to linger any longer in a city that never attracted me and started for Winnipeg. At Winnipeg I had a very pleasant visit with our old classmate, George Archibald, who is head of the engineering firm of George H. Archibald & Company, Limited. I had not seen him since our Summer School in 1899, but he is the same old "Archy" and assured me he could play "Jonah" on the tin flute as well as in the old days. He wished to be remembered to Bowditch and all the boys. My next stops were at Vancouver and Victoria, B. C. I spent considerable time in these places with the idea of locating in that part of the west, but business conditions appeared to be even worse than in the east, so I decided to investigate further south.

At Seattle I attended a Technology luncheon, where I met President Lewis, and a large number of other Tech men in the city. I was very pleasantly entertained by Professor Gleason, class of 1897, who is teaching in the University of Washington, at his home. I made a short stay in Portland, then came down to San Diego and Los Angeles. In Los Angeles I was fortunate enough to find a position with Mr. Wilkie Woodard, Member of the American Society of Civil Engineers, an old friend of mine who used to work in the same office with me on the New York Central, in New York City. I have been engaged on subdivision and landscape work here principally, and early in February, of this year, I opened an office of my own along these lines as you will see. I am also engaged in genealogical research work for the Sons of the Revolution, with headquarters at 812-814 San Fernando Building. This kind of work I have always been considerably interested in, and it may eventually require my whole attention. This is about all I can tell you as regards my work. Two of our classmates are here in Los Angeles, Capt. Charles T. Leeds, senior member of the firm of Leeds and Bancroft, engineers, and Arthur Burr White, who is in private practice here as civil engineer. I have seen Leeds several times. He is president of the Southern California Branch of the American Society of Civil Engineers. White is a fruit-grower in addition to being a civil engineer and has a fine ten-acre lemon grove at Corona. I have visited his home many times since I have been out here. He has two fine boys, but he has not advised me whether he intends sending them to the Institute or not.

Regarding my marriage, the enclosed copy of a clipping from the *Salem News* tells you the whole story. My home address is 1420 Lomita avenue, Glendale, California, where I should be glad to see any of the class who happen out this way.

"Many Salem people will be interested in the following account of the wedding of a Salem couple clipped from the Berkeley (Cal.) *Daily Gazette* of September 23. Professor Buckham was formerly pastor of the Crombie Street Church here.

"Travelling across the continent to meet her fiancé in Berkeley, Miss Ethel P. Wheeler, a teacher in the Bridgewater Normal School in Massachusetts, was married last night to Warren C. Tudbury of Los Angeles. The ceremony occurred at the home of Prof. J. W. Buckham of the Pacific Theological Seminary at 36 Panoramic Way, with only a few relatives in attendance.

"Miss Wheeler's home is in Salem, Mass., where Mr. Tudbury also resided before coming to California. The latter is a graduate of the Institute of Technology and is engaged in his profession as a civil engineer. The couple will make their home in Glendale, near Los Angeles."

Bowditch and his wife attended the meeting of the Technology Clubs Associated at Pittsburgh and had a very enjoyable time. Tom Perry and Z. M. Briggs were the other members of the class present. Seaver was called to New York the day before the meeting, and although Steve Badlam registered, he was not seen at the dinner or luncheons. Everything was arranged most carefully for the care and entertainment of the visitors and the members of the Pittsburgh Association put themselves to a great deal of trouble in order to make the meetings and excursions

such successes. The ladies who accompanied their husbands were given every consideration and were very enthusiastic about the meeting. The Boston committee has had a very high standard for hospitality set them, and everybody must help to make the reunion next year surpass that at Pittsburgh.

The following address changes have been received: Henry A. Albin, 1004 Rebecca St., Wilkinsburg, Pa.—Wm. R. Allen, Jr., Gereke-Allen Carton Co., 217 Elm St., St. Louis, Mo.—Fred S. Atkinson, Atlantic Clock Co., 45 India St., Boston, Mass.—Stephen Badlam, 361 Iroquois St., Beaver, Pa.—Eric W. Bailey, 1419 Washington St., Boston, Mass.—Miss Jane H. Bartlett, Arts and Crafts Studio, 723 17th St., Washington, D. C.—Louis B. Breer, 117 Loughton St., Lynn, Mass.—Henry M. Brock, S. J., St. Andrew-on-Hudson, Poughkeepsie, N. Y.—Miles E. Brooks, 19 Milford St., Boston, Mass.—Arthur F. Buys, 103 Park Ave., New York, N. Y.—Charles M. Carpenter, 214 Linden Ave., Lindenwald, Hamilton, Ohio.—Albert L. Churchman, 116 Hanks St., Lowell, Mass.—Joseph C. Cook, 9 Clarence Ter., Dorchester Centre, Mass.—Frederick H. Cooke, U. S. Navy, Balboa Heights, C. Z.—C. Burton Cotting, White, Weld & Co., 111 Devonshire St., Boston, Mass.—Charles S. Crane, Riverside Portland Cement Co., 612 St. Paul Ave., Los Angeles, Cal.—Cyrus V. Dart, Gould Construction Co., 423 Wellman Ave., Davenport, Ia.—Harry M. Harps, 100 Lewis St., Perth Amboy, N. J.—Herman R. Hunt, 82 Hancock St., Stoneham, Mass.—James W. Hussey, Greenport Basin & Construction Co., Greenport, N. Y.—Daniel S. Johnson, P. O. Box 992, Goldfield, Nevada.—Wm. B. Laine, 50 Morningside Dr., New York, N. Y.—J. F. Lewis, 433 N. 41st St., Philadelphia, Pa.—Harold B. Mayhew, West Tisbury, Mass.—Albert S. Merrill, Turner Construction Co., 11 Broadway, New York, N. Y.—Harold L. Morgan, 42 Aurora St., Waterbury, Conn.—Paul L. Price, R. F. D. Route 2, Hempstead, N. Y.—Lewen F. Searle, 189 Fair St., Kingston, N. York.—Miss Isabel Shove, Yarmouth Port, Mass.—Charles F. Smith, 1055 Railway Exchange, St. Louis, Mo.—Warren C. Tudbury, 441 Consolidated Realty Bldg., Los Angeles, Calif.

1901.

ROBERT L. WILLIAMS, *Sec.*, 8 Lake Street, Brighton, Mass.

The following members of our class registered during the annual reunion of the Technology Clubs Associated which was held in Pittsburgh, February 19 and 20:—W. I. Bickford, E. F. Church, C. F. F. Campbell, W. F. Davidson, H. R. Gilson, A. L. Klieves, F. J. Merrick, A. Nutter, J. E. Ober, O. S. Stockman.

In connection with the reunion two of our men were active on the general committee, W. F. Davidson acting as vice-chairman of the registration committee and W. I. Bickford as chairman of the smoker and entertainment committee.

Bickford writes the secretary: "One of the most productive features of the meeting was the course luncheons. In each group there was a representative from the Institute representing that particular course or courses and a frank discussion was made relative to the possible improvement of the respective course. The discussions were taken down in shorthand and will be corrected, compiled, and forwarded to the Institute."

H. R. Gilson acted as chairman of the luncheon for Courses II, IX, and XIII held at the Hotel Schenley. He gave an address on the subject, "Constructive Criticisms of the Course in Mechanical Engineering at M. I. T."—C. F. F. Campbell also gave an address, the general purpose of his remarks being that there should be some elements injected into the courses at the Institute which would concern the welfare of the workman in manufacturing establishments.

By the time you read this you will have received the usual class data sheet for news concerning yourself. Let this be a reminder to fill it out if you have not already done so as my fund of information is running low and the class wants to hear from you.

H. R. Gilson, engineer for the National Metal Molding Company, has recently been granted a patent for a machine for winding armored cable.—S. C. Sears is a consulting mining engineer and is located at Salt Lake City, Utah.—W. F. Davidson is in the estimating and sales department of the Knox Pressed and Welded Steel Company of Pittsburgh.—Chester N. Chubb is vice-president of the Northern Indiana Gas and Electric Company and manager of the Michigan City District of the company.—C. H. Harris is with Stone and Webster and stationed at Keokuk, Iowa.—A. T. Hyde is with the Fort Hill Chemical Company at Rumford, Maine.—In response to the secretary's request for news regarding '01 men, P. W. Moore replies:

I know a lot about some of the '01 men but the REVIEW won't publish it so what's the use?

E. H. Davis is associate professor of economics and also registrar of Purdue University, La Fayette, Indiana. Regarding traveling he says:

Within the last year, I have several times gone to and from the neighboring city, about one mile away, across the Wabash River. While this is not in itself anything particularly to brag of, yet I am sure that there are mighty few other men of 1901 who can boast of having done it!

Recent Address Changes

C. L. B. Anderson, 706 Commercial Bank Bldg., Charlotte, N. C.—B. F. Clark, Jr., 5925 Carpenter St., Philadelphia, Pa.—S. A. Clark, Franklin, La.—C. B. Coburn, 56 Berwick St., Worcester, Mass.—E. B. Cook, Western Reserve Bldg., Cleveland Ohio—G. A. Cowing, St. Bernard Sta., Cincinnati, Ohio—E. H. Green, 531 Grosvenor Bldg., Providence, R. I.—G. A. Hall, 168 Glenway

St., Grove Hall, Mass.—T. F. E. Reardon, 629 Washington St., Wellesley, Mass.—A. B. Campau, 449 Houseman Bldg., Grand Rapids, Mich.—A. W. Higgins, 1725 No. Meridian St., Indianapolis, Ind.—J. D. Evans, 158 Alter Ave., Park Hill, Yonkers, N. Y.—W. F. Bleecker, Std. Chemical Co., Pittsburgh, Pa.—F. E. Cady, Nela Park, Cleveland, Ohio—J. H. Carr, 5 Marion Road, Winchester, Mass.—S. J. Stone, 215 Huntington Ave., Boston, Mass.

1902.

F. H. HUNTER, *Sec.*, 281 Park Street, West Roxbury, Mass.
J. ALBERT ROBINSON, *Asst. Sec.*, care Underwriters' Bureau of
New England, 141 Milk Street, Boston, Mass.

An informal dinner of the class was held at the Boston City Club on March 18. Mr. Samuel Mixter, a younger brother of Jason and Charles, was the guest, and after the eating gave a most interesting account of a trip in the Arctic. Mr. Mixter was one of a party who chartered a whaling schooner in 1913 for a hunting trip to Bering Sea and the Arctic Ocean. After visiting Kamchatka and Nome, they went through Bering Strait and went along the coast of Alaska past Point Barrow, hoping for whales. The ice caught them here and they had to spend the winter in a hut built of drift timber and the sails from their vessel, living a life not greatly unlike their Eskimo neighbors. The next summer they got their ship free and enjoyed whaling and other sports, also a cruise to Banks Land before returning home. Mr. Mixter's simple, but vivid story, and the slides with which it was illustrated, gave those present a most enjoyable evening.

Since the last issue of the REVIEW went to press a new Technology publication, known as the *Retort* has come to town. Any member of the class who did not receive a copy will please report that fact, together with his address. It is expected that this sheet will be a "Now and Then'er" like the '85 *Hustler* or the '90 *Tea-Kettle*. Letters from classmates, especially those at a distance, will be most welcome in making the next *Retort* also future class notes of general interest.

Lockett from Chicago and Gannett from Harrisburg kept up the '02 end at Pittsburgh, last month. At the annual dinner of the Technology Club of New York, Annett, Bassett, Bosworth, Brainerd, Franklin, Montgomery and Place represented the class. Vice-President Franklin has called a class dinner in New York for March 30.

Pendergast has gone to the Philippines to be secretary to the Secretary of the Interior for the Island Government.—Harold Pope is now located in Cleveland, with the Ferro Machine and Foundry Company.—Gannett was recently chosen president of the Engineers Society of Pennsylvania.—Joe Philbrick returns to New York on April 1, to become superintendent and general

manager of the Columbia Chemical Works in Brooklyn, with offices at 11 Broadway, New York; Joe was assistant superintendent for this concern before going to Newburyport, a few years ago.

Two members of the class are in Europe on works of mercy in connection with the war. Dr. Jason Mixter is taking a three months' shift in a Boston Unit at the Whitney Hospital, Juilly, France, and Charles R. Cross, Jr., who was a special with '02 during our freshman year is helping out on the staff of the American Ambulance Association. For some weeks when he first reached France he was at Dunkirk, helping in the handling of the wounded, but has since been transferred to similar work in Paris.—Henry H. Saylor, editor of *Country Life in America*, is in the South on a swing around the circle which will take him to New Orleans, San Francisco and Minneapolis in search of its twelve best country houses. The *Times-Picayune* of March 14 said:

Before leaving, Mr. Saylor sought nominations from one hundred of the leading architects as to the houses he should see, and as his opinion will largely reflect their advice, and as Mr. Saylor is well known as an architect himself, being a graduate of Massachusetts Institute of Technology and later editor of *The Architectural Review*, *The American Architect* and *House and Garden*, his choice, though personal, is expected to reflect very accurately the consensus of opinion of the leading experts in the country. He has visited the most beautiful suburban houses in the vicinity of Boston, New York and Philadelphia with the result that the house of James L. Breese of Southampton, Long Island, has been chosen to begin the series. Mr. Breese's house is considered by most architects to be one of the finest examples of colonial architecture in the country. It was designed by McKim, Mead and White.

Mr. Saylor plans to visit the following cities on his trip, in each of which he will spend a few days visiting the country places in their vicinity: Washington, Richmond, Charleston, New Orleans, Los Angeles, San Bernardino, Pasadena, Riverside, San Diego, San Francisco, Oakland, Burlingame, Portland, Seattle, Spokane, Salt Lake City, Colorado Springs, Denver, Kansas City, Omaha, St. Paul, Minneapolis, Madison (Wis.), Chicago, Detroit, Toledo, Cleveland, Buffalo.

1903.

M. H. CLARK, *Sec.*, 1790 Broadway, New York, N. Y.
R. N. NUTTER, *Asst. Sec.*, Box 272, Lynn, Mass.

Several 1903 men—Atwood, Comer, Clark, Calnan, Jackson, Scholtes, Haddock, Sears, and Nutter—gathered together in Boston, February 23, for a strenuous class dinner. Aldrich, Capelle, and Ricker had very good intentions, but that was all they amounted to. Letters were received from Doran and Eaton in favor of a summer outing, etc., and it was decided to have one; but the plans for this are to be discussed later. We learned that '05 had challenged us to a bowling contest and thought it wise to indulge in a little preliminary practice that we might better uphold the honor of '03 at that time. The meeting broke up after it had been decided to have a dinner in New York sometime in the future.

Not long ago—February 3—a quiet wedding took place at the

Little Church Around the Corner, New York, when Miss Lillian B. Linnell, of Boston, was married to Mr. Raymond Haskell, superintendent of the third lighthouse district, Tompkinsville.—George MacDonald, who has been employed with the Union Metallic Cartridge Company for eight years, recently gave a talk before the Y. M. C. A., Bridgeport, on "The Evolution of Explosives and Fire Arms," illustrating his talk with an exhibition of rifles of various styles. The Bridgeport paper says:

Mr. MacDonald does not confine his work to that of an engineer. He is to begin his fourth season of instruction in the public speaking class at the Y. M. C. A. on Wednesday, February 17.

His preparation for this work was gained at Columbia University, where, for two years, he attended classes twice a week.—Henry Hammett Fales is now general factory manager of the Champion Silk Company, Marcy Avenue, Brooklyn, N. Y.—E. G. Goodwin was appointed in January to the position of fuel agent for the Southern Railway Company, Northern Alabama Railway Company, and Virginia and Southwestern Railway Company, with headquarters at Knoxville, Tenn., and subsidiary offices at Birmingham, Ala., and Princeton, Ind.—A son, Richard Warren, was born to Mr. and Mrs. Thomas E. Sears on October 14, 1914.

Address Changes.

Hammett Fales, 179 Marcy Ave., Brooklyn, N. Y.

1905.

GROSVENOR D'W. MARCY, *Sec.*, 246 Summer Street, Boston.
CHARLES W. HAWKES, *Asst. Sec.*, 23 Saxon Road, Newton Highlands, Mass.

Since our last number, notices of the following weddings have been received:—Eleanor Latham Newcomb and Lloyd Thomas Buell were married in New York on October 14, and are now at home at 359 Warburton avenue, Yonkers, N. Y.—Louise Elizabeth Clarke and Thomas Francis Geraghty were married on November 4 in Chicago.—Mary Althorpe Spencer and Willard Eastman Simpson were married in San Antonio, Texas, on January 12, and are now at home at 1211 West Woodlawn avenue, San Antonio.

Landon Carter Boggs was born to Mr. and Mrs. Charles R. Boggs on May 1, 1914.—Miriam Frieda Helpfern was born on September 6, 1914.—Andrew Fisher announces the arrival of Anne Damon Fisher on February 7. Andy is now selling oil for Marden, Orth & Hastings, and is living at 6 Copeland place, Roxbury.

In the last REVIEW notes a data blank was mentioned for securing information for our Ten Year Book. This has been delayed, as the committee is not decided on just what information to include. The fact that the REVIEW is read was proved, however,

by several fellows writing in, asking for the blank. Thomas Shaw writes as follows from 37 Vanderbeck place, Hackensack, N. J.

My "Ten Years Out" have been somewhat prosaic, but not entirely eventless,—for instance, I have accumulated (in avoirdupois) some 220 pounds,—subdivided as follows:—1 wife 115 pounds, 1 daughter 35 pounds ($4\frac{1}{2}$ years). 1 son 25 pounds ($2\frac{1}{2}$ years). Self 45 pounds.

Now, I won't say any more, or there wont be any inducement for you to send me a data blank.

Edward C. Smith writes from 18 Constance street, Toronto, Ont. thusly:

The '05 notes were full of interest. Sorry I cannot match Mann's tales of adventure. We are still making dry cells for the Canadians and fortunately they are demanding quite a few just now though business is not so brisk as it might be. The firms making shells, harness, boots and uniforms for the soldiers are busy. The folks here are much excited over the war. The second contingent is now going to the front. Hope United States keeps out of it. If Uncle Sam wants to exercise his soldiers he might as well send them down to clean up conditions in Mexico.

—The secretary sent post cards to everyone he could think of who might send in a news item, and gleaned the following from A. W. Walker, Ballantine, Mont.:

Am alive and very busy all right, building drains on Huntley Reclamation Project. Have a fine new son born December 11, Russell Wood Walker. Regards to all the fellows.

—P. G. Hill, New York:

Just say that Lyman Proctor Hill was born November 15, 1914, and since that date has been keeping his Dad too busy to note any other news. The boy is getting along fine, taking his nourishment like a Belgian soldier, and gaining six ounces every week to date. What better news in all the world!

—Naval Constructor J. A. Furer, U. S. N., is in charge of the equipment of the shops at the new Naval Station, Pearl Harbor, Hawaii, where the Government is building a ten million dollar plant as an advance base for the Pacific fleet. The shops are to be of such capacity and variety that the fleet will not be dependent on the home yards for repairs. A thousand-foot dry dock is also being built which represents the largest part of the investment being made by the Government.—Maurice B. Landers, 3320 19th street, N. W., Washington, D. C.:

We have a girl, born Dec. 26, 1914, Jean Birdsall Landers. Nothing else is of any interest.

—Robert S. Beard, 1122 Ohio street, Lawrence, Kan.:

Am doing some special work at the University of Kansas this winter until things pick up down in Kansas City. I made a big discovery this summer which will interest a lot of the old '05 boys. I have found the best girl in the world. She lives in Kansas City, Mo. and her name is Marianne Brooke.

—W. D. Clarke, Central Point, Oregon:

Yes, I am alive and well—never better, physically, at least. Having left the engineering field for the time being, I am not in a position to give any news items about "other fellows" and that fact is the principal item of news that I can give about myself. Have been in the famed "Rogue River Valley" since last May and

am exceedingly busy, running, together with my brother, a fifty-acre fruit ranch. We have a few apples, about seven acres—the balance in pears for which this valley is renowned, as perhaps you know. We are located only about twenty-five miles from where Earl Weaver is, so see him occasionally. Probably you know he is also a farmer, manager of "Clayton Orchards."

—Chester Allen, State College, Pa.:

Am "alive and well," unmarried and happy. Am assistant professor of civil engineering at the Pennsylvania State College. Hope to attend some of the reunions, but so far have been unable to do so.

—Mildred (Wheeler) Tompson, 38 Lincoln avenue, Amherst, Mass.:

I have no news that I judge would be important. You will note change of address. We are now keeping house in a new single house and find it very nice. I have been wondering concerning plans for the reunion—our tenth!!!

—Frank A. Craver, Tulsa, Okla.:

Haven't seen any '05 men in a long time. None in this part of the country, that I know of. Personally, things are breaking well for me, am in the business of producing oil and have been quite successful. Have a fine baby daughter born November 24, 1914.

—Theo. P. Morehead, 1109 Karpen Bldg., Chicago, Ill.:

Am now located at the above address. With the exception of one year, I have been on the Pacific Coast ever since 1907, erecting fireproof buildings in Seattle and Vancouver, B. C. Consequently I have seen very few '05 men.

—L. K. Laney, Roswell, New Mexico:

About the only item of interest that I am able to offer at this time is that on November 18 last, a son was born into our family, this being our first offense. Have not seen any of the men of the class for years nor heard of many.

—Robert T. Luce, Brunswick, Ga.:

Thanks for the reminder that I have been neglecting to keep "the best class ever" posted on my whereabouts. Am at present commanding officer of the United States Coast and Geodetic Survey Steamer *Bache*, engaged in hydrographic surveys off the coasts of Georgia and Florida, with headquarters at Brunswick, Ga. Haven't seen an '05 man for so long, I've almost forgotten how they look. Had four M. I. T. '14 men on this ship recently, and still have one. Don't think from them that the school has changed much.

—H. J. Macintire, Seattle, Wash.:

I don't believe I have any news of myself which you have not already received. It is a long way to—Boston, and I greatly regret being unable to attend the reunions and gatherings which I hear of in this corner of the map.

—C. A. Anderson, 101 Manheim Street Germantown, Phila., Pa.:

Recently moved to Philly from Cleveland to open a sales office for the Ilg Electric Ventilating Company of Chicago. Glad to get back East again, if I can't get to Boston. Cover territory from Washington up nearly to New York and a month ago had a very pleasant visit with my old room-mate Landers, who is back in the Patent Office.

—F. M. Carhart:

Have been here in the sagebrush in charge of work for this company for the past nine months, with only two short trips out into the world during that time. You can see that my opportunities for running across other '05 men are rather limited

to say the least. Things are all well with me personally, and should I happen to run across any news of any of the fellows or to meet them, I will most certainly drop you a card."

A supper and bowling party was held on February 18 for the fellows around Boston. The bowling was very exciting, but we are not publishing any scores, as we have issued a challenge to the class of '03, which follows:

TO THE MEMBERS OF THE CLASS OF 1903, M. I. T.

GREETING:

WHEREAS:

Members of the Class of 1905, learning that 1903 Men meet tonight, and understanding that they are a Jovial Bunch, and full of Good-fellowship, withal of not too much Skill in the Gentle Art of Bowling, and further,

WHEREAS:

Members of the Class of 1905 recognize a kindred spirit in themselves, and a warm feeling of friendship for the Older Classes Still Showing Signs of Life, particularly those avoiding an even final Digit, and further,

WHEREAS:

Members of the Class of 1905, as a class, have never yet, so far, to henceward, up to now, shown any too much Skill in said Gentle Art of Bowling, albeit having proper Pride and becoming Confidence in their Ability to Knock the Stuffing out of any Aggregation of Hoary Relics of the Past, with unshaken Conviction that the Right will triumph, knowing that one '05 Man, with a pin boy, is a Majority:

Now THEREFORE:

The Members of said Class of 1905 do hereby openly Defy and Challenge the Members of said Class of 1903, to a Bowling Match, each side to be represented by at least three Teams of five men each. Such Match to take place in the Town of Boston, the time and place, and exact rules governing said Match to be determined to the mutual satisfaction of duly appointed representatives of the Class of 1903, and the signatures hereto, representing the High, Noble and Most Puissant Class of Nineteen Hundred and Five.

Given under our hands and seal, this 23rd day of the Month of February in the Year 1915.

*Secretary and Asst. Secretary,
Class of '05.*

So far no reply has been received from this challenge, and we are considering asking the Secretary of State to send a communication to them on the subject.

Lawrence U. Fuller is now in the general insurance business with Thomas B. Knight & Company, 328 Union street, Lynn, Mass.—Donald R. Battles left the Electric Boat Company, last fall, to go with the Fore River Shipbuilding Company—R. E. Bell has to travel around quite a lot and reports meeting Sam Seaver in Montreal in February. Sam was as cheerful as ever, and sent regards to all of the boys.—Prof. Selskar M. Gunn is becoming a national authority on home economics and sanitation. On February 25 he gave a lecture in Fort Worth, Texas, on sanitation and disease rather than old age being the chief cause of death, which was very fully reported in the local papers.

Competition for writing these REVIEW notes is very keen, ten separate men were written to, asking for a report of the '05 activities at Pittsburgh, and only one replied,—Bruce Hill said he was sorry, but had to go away.

W. S. Richmond, Old Custom House, Detroit, Mich. writes the following:

Please enter on the books January 25, 1915, as the birthday of Janet Carpenter Richmond, our second child.

"News from the Classes," chapter on 1905, is a portion of the REVIEW which I always read eagerly, longing for more.

The necessity of supporting a family, rather than the desire to render altruistic service to my country, has kept me in governmental employ for nearly nine years. During this time, however, I have been more or less instrumental in preventing Chicago from draining the Great Lakes into the Gulf of Mexico, and in keeping hydro-electric power companies from transforming Niagara Falls into a dry cliff. Blocking the game in these matters may have caused certain citizens some inconvenience and loss of revenue, and therefore from some points of view have been reprehensible. Uncle Samuel has, however, tried to take a broad view of the subject, and get a proper perspective of the whole thing. He realizes that Chicago occupies but a small portion of the Great Lakes basin, and that citizens in the United States and Canada residing far from the Great Lakes have some interest in Niagara Falls. The hydrologic and hydraulic investigations and studies which have occupied most of my time during the past nine years have been of great interest, and have led me to a fairly comprehensive acquaintance with this truly marvelous region of the Great Lakes.

Some inquiry has been made regarding celebration of our tenth anniversary. The general feeling seems to be that since the big reunion is to be celebrated next year, it would be better to put off our special effort to coincide with that, as otherwise neither gathering would be the greatest success.

1906.

C. F. W. WETTERER, *Sec.*, 147 Milk Street, Boston, Mass.

JAMES W. KIDDER, *Asst. Sec.*, 50 Oliver Street, Boston, Mass.

There were but few 1906 men at the 1915 meeting of the Technology Clubs Associated, held in Pittsburgh on February 19 and 20. The following letter from Stewart C. Coey with regard to this matter will be of interest:

"I believe I have taken it upon myself the duty of writing up our class luncheon at the 1915 meeting of the Technology Clubs Associated in Pittsburgh. Well, we had a rousing good meeting but our 1906 delegation was hardly in line for prizes for supplying the largest number of men. In fact, at the class luncheon, George C. Furness, VIII, and myself were the only representatives of our class. However, by a combination with the 1905 men we made up a table at the luncheon which was held at the Hotel Schenley. The luncheon was a feature of Tuesday and before night our numbers had been swelled 150 per cent. by the addition of Dan Adams, II, D. C. Davis, VI, and P. N. Critchlow, I.

"We really had the real time of the meeting at the smoker on Friday night with our sedate patent attorney, D. C. Davis, forgetting his onerous duties as a patent investigator for the Westinghouse Company and appearing in a burnt cork "Hock the Kaiser" moustache. The other 1906 men were also heavily

disguised. The red and gray caps and ammunition pouches gave an appearance of the presidential parade, the only thing that was lacking being the Boston cops.

"The visits to the various plants were of great interest to the various parties and especially to the men from the East.

"We had two representatives at the Course VI luncheon on Saturday and the discussion following this luncheon was most interesting. At the banquet which closed the reunion everything looked good except to see 1909 carry off the banner for the largest attendance with fourteen members present. We should beat that record all hollow next year. It might be feasible to give another banner to the class having the largest percentage of living members present and give some of the older classes a better chance. Next year we want to try and wake up the 1906 men and have a record breaker at the big Boston reunion which will be our ten-year reunion also."

John J. Donovan is making good in California. The San Francisco *Chronicle* recently issued a souvenir number and commented on prominent men of the state. They had the following to say with regard to Donovan:

John J. Donovan, city architect of Oakland, was born in North Andover, Massachusetts, and received his education in the public schools there and at Phillips Academy, Andover. Later he attended the Massachusetts Institute of Technology at Boston, from which he was graduated in architecture with the degree of bachelor of science. From Boston he went to New York and took up work with the architectural firm of Ernest Diagg, and while in that connection superintended the erection of the famous Singer building. Later he became attached to the New York firm of Palmer & Hornbostel, the architects for Oakland's \$2,000,000 city hall. Donovan came to Oakland, April 5, 1911, to act as supervising architect of that structure.

Due to the way in which this work was done he was made city architect and in that capacity has planned and built some twenty school buildings in Oakland, and two in Sacramento, one of the latter being the Oak Park school. These buildings have struck a new note in school architecture on this coast and have been inspected by delegations from all parts of the coast and the East. So noted are they that the *American Architect* of New York will devote an entire edition to them. The designs are of various types and the prices range from \$600,000 for the new Manual Training and Commercial High school, to \$43,000.

In addition to their architectural merits, sanitation and hygiene have received special consideration in these buildings, which are convertible into open air schools. They are equipped with showers, gymnasiums, assembly halls, lunch-rooms, and have carefully prepared playgrounds, while the rooms are constructed so as to obtain the greatest quantity of sunshine. Oakland's new municipal auditorium has also been a conception of Donovan. This building, which will cost when completed, \$1,000,000, will be one of the finest structures of its kind in this country.

A request was made of A. H. Keleher that he tell about his work in South America and the following extract from his letter is very interesting:

Yours truly has specialized as a commercial ambassador to South America, representing six manufacturers of electrical supplies. I have been back for two months, and am sailing again for Argentine, Brazil, Uruguay and Chile about March 1, this trip being the seventh annual one that I have taken to South America. I am now more at home in the large cities of South America than I am

in New York, which I regret, of course, because I am very fond of my own country. But I have my reward in knowing that I am building up for myself a business, and in knowing also that I have removed myself from the keen competition of able fellows like my old classmates. You see, the fact that Spanish and Portuguese are necessary in selling, keeps the other fellows out.

I have not run across any gold mines as yet. It takes time to sow the seed before getting results. The last three years have been very lean ones in South America. We are, however, owing to the enforced withdrawal of German competition, on the verge of big things, and I am quite excited about the prospects. It is even yet a waiting game and one must have *much a paciencia* but I am confident of good results for the future.

Jorge Large, another member of our class who is permanently located in South America, is at the head of a large shipping concern of Rio de Janeiro, known as "Companhia Nacional de Navegacao Costeria." In a letter to H. V. Coes, Large gave the following interesting information:

I have just fitted two motors of the semi-Deisel type on a 250-ton barge for carrying cargo along the coast in places where the big ships can't go and as it gave very good results I am going to start making these motors in our shops. I'll let you know if we are successful and if not, why not!

As far as we are concerned, the crisis is more or less over, thank goodness. Just now all my ships are going ahead and always full.

E. B. Rowe, who is with the Holophane Works of the General Electric Company at Cleveland, Ohio, was in Boston the latter part of December. Rowe is chief illuminating engineer for the Holophane Works.—The Boston *Globe* of February 28 states that Harvey B. Orcutt has been promoted to the position of assistant engineer with the Phoenix Bridge Company of Phoenixville, Pa.—E. B. Evans has transferred his business and residence from Montreal to the town of Moncton, N. B., for the next four months, and may be addressed there at Alma and Victoria streets.—J. H. Polhemus has recently been made assistant general manager of mines with the New Jersey Zinc Company, at 55 Wall street, New York City.

The following address changes have been received: Allen Ashley, Westinghouse E. & M. Co., 165 Broadway, New York.—Francis G. Baldwin, 504 East 4th St., Cincinnati, Ohio.—Earl S. Bardwell, 960 Ventura St., Berkeley, Calif.—Edwin B. Bartlett, 545 Bellevue Pl., Milwaukee, Wis.—Fred R. Batchelder, 172 Harvard St., Brookline, Mass.—Robert H. Booth, 280 Henry St., Brooklyn, N. Y.—Shields Burr, care of H. J. Sessions & Son, Bristol, Conn.—William J. Cady, Hood River, Ore.—Clarence E. Carter, 9 Masonic Block, Reading, Mass.—Harold D. Church, Packard Motor Car Co., Detroit, Mich.—Harry H. Cook, 75 Berkshire St., Indian Orchard, Mass.—Herbert W. Dean, 19 South 2d St., Harrisburg, Pa.—Harold C. Elliott, 27 Wormwood St., Boston, Mass.—Miss Elizabeth Greenman, 50 Massachusetts Ave., Cambridge, Mass.—Charles W. Hawkes, 23 Saxon Road, Newton Highlands, Mass.—Walter A. Hopkins, 16 State St., Boston, Mass.—Edward R. Hyde, 120 Perkins St., East Somerville, Mass.—

Dr. James H. Means, 196 Beacon St., Boston, Mass.—Mark H. Place, 3337 Hirsch St., Wicker Park Station, Chicago, Ill.—James H. Polhemus, New Jersey Zinc Co., 55 Wall St., New York, N. Y.—Chas. Saville, 3612 Swiss Ave., Dallas, Texas.—DeWitt M. Taylor, 99 South Central Ave., Wollaston, Mass.—Harold E. Young, 15 South 5th St., Minneapolis, Minn.

1907.

BRYANT NICHOLS, *Sec.*, 10 Grand View Road, Chelsea, Mass.
HAROLD S. WONSON, *Asst. Sec.*, Waban, Mass.

An informal gathering of a group of the men of the class near Boston was held at the new Boston City Club on Saturday, February 27. Those present were: Don Robbins, Hosmer, John Thomas, Milton MacGregor, Frank MacGregor, Karl Richards, Lawrence Allen, Leon L. Allen, Macomber, John Mahar, P. R. Nichols, Turkington, R. K. Taylor, Wonson, Harry Moody, Sam Coupal, Fred Morrill, Allen Pope, Bryant Nichols, and also our honorary member, Bursar Ford. After a splendid dinner, Harry Moody who attended the Technology gathering in Pittsburgh, described that event. Macomber and Lawrence Allen told of some of the problems now before the Alumni Council, and Bursar Ford told of progress in the direction of coöperation in various directions among the undergraduates. At about 8 p. m. the meeting broke up, and most of those present went to the Boston Arena and witnessed a hockey game between the St. Nicholas team of New York, on which the famous "Hobey" Baker plays, and a Boston team. Another gathering similar to this will be held, probably on May 1.

The secretaries have very few news items regarding men of the class.—Leon L. Allen's address is changed to 143 Mason terrace, Brookline, Mass.—A daughter was born to Mr. and Mrs. Lawrence Allen on January 10, 1915, by name, Helen Stearns Allen.—W. H. Bradshaw is now living at 688 Nostrand avenue, Brooklyn, N. Y.—E. L. Chaffee became the father of Elsa Kreutz Chaffee on October 24, 1914.—Harry Crohurst has left the employ of the Massachusetts State Board of Health, as he received an appointment as sanitary engineer in the United States Public Health Service on Industrial Waste Investigations in August, 1914. His present address is Hygienic Laboratory, 25th and E streets N. W., Washington, D. C.—L. D. Davenport is with the Oliver Iron Mining Co. at Hibbing, Minn.—Wheaton I. Griffin, 102 South street, Utica, N. Y., is still in the wholesale grocery business. On April 14, 1914, a son, Frederick Brewer Griffin, arrived at his home.—L. Breed Hall, at 101 Milk street, Boston, began practice last October as a timberland counsellor and attorney at law. He is connected with the law office of Lowell & Lowell, 38 Equitable Building, Boston.—We gladly record the birth of another '07 baby,

William Ewell Hall, born February 7, 1915, son of Ralph N. Hall, 1016 Center street, Newton Center, Mass. Hall is now at the Boston office of the United Shoe Machinery Company in the department of agencies, which deals with renovations of old shoe factories, introducing modern machinery and systems, and the planning of new factories.—A daughter, Dorothy Emma, was born to Mr. and Mrs. W. F. Kimball, 26 Fosket street, Somerville, Mass., on March 12, 1915.—J. E. Tresnon, who has moved about between Telluride, Colo., Boston and England since graduation, is now at 38 Buckman street, Everett, Mass. His last trip to England was quite successful, inasmuch as he secured a wife, for he was married last June. He is now working for the Boston Elevated Railway Company.—Clarence Howe, who is chief engineer for the Board of Grain Commissioners for Canada, is now at 413 Ross Building, Saskatoon, Canada. Under date of March 4, 1915, he writes that under his direction grain elevators at Port Arthur, Saskatoon, and Moose Jaw have been completed, and that now an elevator at Calgary and one at Vancouver are under way. Howe expects to spend a good deal of time at Vancouver during the next year and is planning to take in the Engineering Congress at the exposition in San Francisco.—S. E. Rockwell, 1151 Empire Building, Seattle, Wash.—R. K. Taylor is now living at 92 Henry street, Atlantic, Mass. He is one of a number of engineers working on the new Dorchester tunnel under Fort Point channel involving tunnelling for 3,000 feet at a depth of about 40 feet below high water by the shield method in conjunction with compressed air.—Willis G. Waldo is now at 3507 East 9th street, Kansas City, Mo.—Edward G. Lee writes from 11 Lisbon street, Lewiston, Me.:

I am working with Mr. Walter H. Sawyer, consulting hydraulic engineer of Lewiston, coming here from Portland last November. It may be of interest to some of our classmates to hear that I am the happy father of three children—Dorothy, Carol and Virginia.

—A brief note received recently from Ralph Crosby shows that he is in Syracuse, N. Y., practicing mechanical engineering, in business for himself, estimating and designing steam and hydro-electric plants.

1908.

RUDOLPH B. WEILER, *Sec.*, Care The Sharples Separator Co., West Chester, Pa.

CHARLES W. WHITMORE, *Asst. Sec.*, Care of Lockwood, Greene & Co., 60 Federal Street, Boston, Mass.

I. *On the Part of the Secretaries*

Mr. and Mrs. George Belcher announce the birth of Barbara Belcher, weight $5\frac{1}{2}$ pounds.

Do you know that 1908 is the only class that holds bi-monthly dinners?

Do you realize that coming to these dinners is one of the best possible ways of keeping track of your old friends?

Do you know that it is good business to attend the dinners?

Do you have to be told that there is good fun at our dinners?

The seventh annual dinner was held in the new club house of the Boston City Club on Tuesday evening, March 9 at 7. Among the 200 classmates within striking distance a loyal 18 were present. We realize that a number of men did not come because they could not, but the larger number stayed away through indifference and we are sorry for them.

Where are the married men? They are not showing up well lately.

We had our good time, and with the help of a few single men the Married Team beat the Single Team three straight at bowling—The last string being a special match between picked teams four men on a side:

Married—Whitmore, Batchelder, Allen, Tetlow.

Single—Cary, Luther, Collins, Ames.

Following are the names of those present: H. A. Cole, G. E. Freethy, L. H. Allen, B. W. Cary, Tim Collins, Howard Luther, R. E. Manning, R. J. Batchelder, A. W. Heath, J. Tetlow, M. Ames, W. H. Toppan, Link Mayo, P. B. Barrett, E. I. Wells, H. H. Damon, S. C. Lyon, C. W. Whitmore.

The regular bi-monthly dinner was held at the Boston City Club on Tuesday eve, January 12.

Lester S. Weeks, who has only been back from Porto Rico and Cuba a short time, was there and told about conditions there.

Howard Luther, our class representative on the Rand Memorial Committee told us that our class need only give fifty dollars more to do its share. He collected quite a few bones there from the flush ones. Now, boys, shell out to Howard, care of the 'Stute.

For some unknown reason the single men won the bowling—probably because Burt Cary was not there.

Present were C. W. Clark, G. E. Freethy, R. J. Batchelder, W. D. Ford, S. C. Lyon, C. F. Joy, Jr., L. S. Weeks, Munroe Ames, A. W. Heath, John Tetlow, B. S. Leslie, H. T. Gerrish, L. T. Collins, Howard Luther, Wm. H. Toppan, C. W. Whitmore.

C. D. Putnam is evidently as good a press agent as he is engineer, as the following clipping from the Dayton, Ohio, *Journal* December 27 witnesseth:

Engaged in the science of civil and landscape engineering is Charlton D. Putnam, a young man of fine intellectual equipment whose offices are at 601-2 Schwind Building. Mr. Putnam is 28 years of age, and a native of Lowell, Mass. He attended the grammar schools of Boston, the East Boston High School and was graduated from the celebrated Massachusetts Institute of Technology in civil engineering. For three and a half years he served as chief engineer for the metropolitan Park Commission of Providence, R. I. For two and a half years Mr. Putnam has been engaged in civil and landscape engineering in Dayton. With wife and one son he resides in this city. Mr. Putnam is the engineer for "Daytoncrest" the fine suburban tract that is being developed in the upper part of Dayton View

by Bonebrake Seminary, the largest home tract ever attempted in Dayton. "Daytoncrest" will comprise a tract of 126 acres, part of a tract of 250 acres purchased by Bonebrake Seminary. The first half to be developed will be laid out in 700 building lots and there will be more than four miles of driveways. The promoters of the residence tract contemplate the maintenance of a water system and a sewage disposal plant. Mr. Putnam does all the engineering for John H. Patterson at Hills and Dales, and E. A. Deeds at Moraine farm and at Delco Dell, the elaborate summer home of Dayton Engineering Company employees. With the noted Olmsted Brothers of Boston, Mr. Putnam laid out the grounds for the immense Lima State Hospital, which institution is said to represent the latest word in scientific state treatment of the insane.

Mr. Putnam is a member of the new Engineers Club of Dayton, of the University Club of Providence, and of the recently formed Technology Club of Dayton, made up of graduates and former students of Massachusetts Institute of Technology.

From C. S. Gibbons, Jr., Central Chili Copper Company, Ltd., Panulcillo, Coquimbo, Chile under date of January 9. (My—look at the size of the check!):

Received your notice sometime last year about class dues, etc., but mislaid the letter and in fact forgot all about it. Having formed New Year's resolutions and all that sort of thing, I discovered my discrepancies in regard to dues and am enclosing a check for \$5.00 in payment for years '09, '10, '13, '14 and '15. Have just recently terminated my second year in charge of the mines here and am starting on my third and last year of my contract. Of course, I may decide to renew. I may be able to take a trip back this coming fall and so would appreciate it very much if you would give me some dope as to what is or will be going on back there so that I may plan on it. Such things as alumni reunions, class reunions, dinners, picnics or whatever may happen to be going. Have enjoyed my stay in Chile immensely so far; climate has agreed with me very well and am still a scientific bachelor as well as the reverse. Too far away from home to change my state personally and I do not approve of such things by proxy. Do not have much time to correspond personally with many of the fellows but always read the class news in the REVIEW and hope that when you see the bunch you will convey my best personal regards to all.

From L. S. Weeks, 49 Warwick road, Melrose Highlands, Mass., under date of November 24:

Kindly address all mail to me at the above address and please let me know "what is doing" with the class, present and prospective gatherings. For nearly six years I have lived in Porto Rico and Cuba, except several months at Keokuk, Iowa, with visit to Boston at rare intervals, so my interest in class affairs has been hardly noticeable. At present I have been home from Cuba for about six weeks, confined to a hospital more than half the time and to my home the remainder. Now, however, I am sufficiently convalescent to get around and expect to have a breathing spell of a couple of months at home and around Boston though it is uncertain when I shall leave again for parts unknown according to the dictates of business. It will be a pleasure to meet as many of the class as possible and attend as many gatherings as I can while within reach, hence my request for information.

From the *Boston American* of March 21;

A Boston—St. Louis romance has just been revealed through the announcement of the engagement of LeSeur Thornton Collins, Technology '08, of Boston, to Miss Marjorie Post, formerly of St. Louis and now living with her parents in Cape Gerardeau, Missouri.

Collins is a director of the bond house of Marshall & Company, No. 70 State street and lives at No. 82 Chestnut street, Beacon Hill.

Miss Post and Collins met for the first time five years ago while on a summer vacation at Martha's Vineyard and they have frequently met since in North Sutton,

N. H., where Mrs. Post and her daughter have spent part of their summers, stopping at the Huntoon House.

Louis Post, father of Miss Marjorie, was at one time head of a drain tile company in St. Louis but has now retired. Miss Post attended a private school in St. Louis and then for four years was at the Monticello Girls' School in Illinois. She took a finishing course at Brantwood Hall, New York, on the Hudson.

Mary Alice Clark was born to Mr. and Mrs. D. W. Clark on January 10, at Chicago, Ill.

The following letter was received March 30, from Clarence L. Hussey, secretary of the Technology Club of Rhode Island:

I regret to inform you of the death of Mr. George A. Clatur, on March 3, 1915, after a very short illness. Mr. Clatur was a loyal member of the Technology Club of Rhode Island and of genial personality. He was a civil engineer in the City Engineers' Office in Pawtucket, R. I. and resided at 3 Alice street, Pawtucket, R. I. This information was received from his mother who lives at the same address.

RESOLUTIONS

WHEREAS, God in His infinite wisdom has removed from our midst another of our classmates, be it

Resolved that in the death of George A. Clatur the class of 1908 of the Massachusetts Institute of Technology has lost a loyal and honored member, be it

Resolved that a page of the records of the class of 1908 be set aside and a copy of these resolutions spread thereon, be it

Resolved that a copy of these Resolutions be sent to his bereaved family with our sincere sympathy.

LESLIE B. ELLIS,
HERBERT T. GERRISH,
Committee on Resolutions.

New Addresses

Edw. E. Allen, 1602 Locust St., St. Louis, Mo.—Lawrence H. Allen, Interstate Commerce Commission, Div. of Valuation, Eastern Dist., Washington, D. C.—Alfred B. Babcock, care of Am. Sugar Refg. Co., Brooklyn, N. Y.—Geo. M. Belcher, W. H. McElwain Co., Manchester, N. H.—Donald Bowman, 72 W. Adams St., Room 620, Chicago, Ill.—B. Bullard, Garden City, Kans.—Harry L. Burgess, care of Am. Tel. & Tel. Co., New York City.—Walter E. Caldwell, care of W. E. Caldwell Co., Louisville, Ky.—Burton W. Cary, 52 State St., Boston, Mass.—L. T. Collins, 70 State St., Boston, Mass.—S. H. Daddow, St. Clair, Pa.—S. L. Davidson, Wichita, Kans.—Gregory M. Dexter, U. S. Engineers, Wheeling, W. Va.—R. E. Drake, Avon Sole Co., Avon, Mass.—A. F. Edge, Massena, N. Y., care of Aluminum Co. of America.—G. W. Everett, Diehl Mfg. Co., Elizabeth, N. J.—V. M. Frey, 114 N. George St., York, Pa.—W. D. Ford, 200 Devonshire St., Boston, Mass.—Ferdinand J. Friedman, 357 St. Catherine St., Montreal, Can.—Arthur L. Gardner, Roessler & Hasslacher Chemical Co., Perth Amboy, N. J.—Irving M. Guilford, Ball &

Socket Mfg. Co., W. Cheshire, Conn.—J. W. Hale, Penna. R. R. Co., Altoona, Pa.—M. B. Hall, Brown & Hall Supply Co., St. Louis, Mo.—Sherwood Hall, Jr., 889 Boylston St., Boston, Mass.—Allen E. Hazard, Bay State St., Rwy. Co., Campello Car Barn, Campello, Mass.—Robert D. Hennen, Morgantown, W. Va.—Alfred R. Hunter, 60 Prospect St., Hartford, Conn.—R. Y. Kennard, Turner Const. Co., 316 Prudential Bldg., Buffalo, N. Y.—Karl R. Kennison, 815 Grosvenor Bldg., Providence, R. I.—J. H. Locke, Commonwealth Steel Co., Granite City, Ill.—Arthur A. Longley, 1321 Marquette Bldg., Chicago, Ill.—Howard B. Luther, Mass. Institute of Technology, Boston, Mass.—G. M. J. Mackay, Research Lab., General Elec. Co., Schenectady, N. Y.—R. E. Manning, 31 Milk St., Boston, Mass.—Lincoln Mayo, 73 N. Washington St., Jamaica Plains, N. Y.—E. F. Orchard, R. T. Hewittson & Co., 21 Bromfield St., Boston, Mass.—Herbert H. Palmer, Dartmouth College, Hanover, N. H.—Henry Patton, 248 Boylston St., Boston, Mass.—Charlton D. Putnam, 601-2 Schwind Bldg., Dayton, O.—John A. Remon, A. T. & T. Co., 15 Dey St., New York City.—H. A. Rapelye, Oliver Bldg., Pittsburgh, Pa.—Horace S. Sargent, Revere Drop Forge Co., Revere, Mass.—Jas. M. Talbot, S. S. White Dental Mfg. Co., Prince Bay, L. I., N. Y.—A. Torossian, 50 Bromfield St., Boston, Mass.—Franklin T. Towle, 20 Kilby St., Boston, Mass.—Channing Turner, Winchester Repeating Arms, New Haven, Conn.—Kurt Vonnegut, 610 Indiana Trust Bldg., Indianapolis, Ind.—J. W. Wattles 3rd, 39 Boylston St., Boston, Mass.—E. L. Warren, 354 Congress St., Boston, Mass.—Harry Webb, Memphis Milling Co., Box 569, Memphis, Tenn.—G. W. Welch, Interstate Power Co., Decorah, Ia.—Edgar I. William, Mass. Inst. Technology, Boston, Mass.—Arthur C. Winch, Saxonville, Mass.

1909.

CARL W. GRAM, *Sec.*, with Walter Baker & Co., Ltd., Milton, Mass.

Everyone in the vicinity of Boston will receive a notice of the Tech Show Alumni Night at the Boston Opera House on Saturday evening, April 17. A block of front row seats has been reserved in the center section of the first balcony the same as last year and a considerable number of "couples" are expected to be present. We will also have a class dinner the same evening previous to be performance to which the ladies are all cordially welcome. Telephone or write the secretary for reservations. The show being on Saturday night, will give an opportunity for those fellows located in the outlying towns and cities to be present. It is hoped a large number will turn up at the dinner as the class reunion will be brought up for discussion.

Professor Locke forwarded a letter received from Edward T. Almy, Jr., Chattanooga, Tenn.:

I am with the American Coal and By-Products Coke Company of Chicago, with offices at 608 Dearborn street. It is an engineering company and I am one of their engineers. The company designs, superintends erection of and supplies operators for by-products plants, in connection with gas plants. At present it is rather a new company, with an immense future, and practically unlimited possibilities. At the present time the company is erecting a plant here in Chattanooga for the Chattanooga Gas and Coal Products Company. The plant will consist of a large flueless coke oven, the largest ever built so far, with by-products house, and complete equipment for this type of plant. Work has not been going on very long, and so far only the concrete foundations of the coke oven are in, also a few small foundations for machinery.

They have been having a lot of bad weather here, and of course that is not good for outside construction work. At the present time I have charge of all the construction work. I like the work very much as it is along lines that I am familiar with. The men in the company are all very congenial and fine men to work with.

—A clipping from a Boston paper of January 3, 1915, gave the following information:

Edward Thrasher Williams of Washington, D. C., who was graduated from the Massachusetts "Tech" in 1906 and is now connected with the Chinese customs department at Kobe, Japan, has further interested his classmates by wedding in Kobe an American bride in the person of Miss Ida Leek Ellison of Cleveland. Mrs. Williams made the long journey to Kobe to wed Mr. Williams. Her brother-in-law and sister, Mr. and Mrs. Britton, accompanied her.

—The secretary recently ran across C. S. Robinson who is back at the 'Stute working for an M. S.—From a Butte, Montana, newspaper of December 31, 1914, we have a clipping as follows:—

Word has been received in Butte of the marriage at Saranac Lake, N. Y., of Benjamin Hammond, son of Dr. and Mrs. J. S. Hammond of this city, to Miss Pauline Better of that city. Mr. Hammond has been East for some years, and attended the Massachusetts Institute of Technology, and is now identified with the Leiter Piano Company. Mr. and Mrs. Hammond will make their home in Syracuse, N. Y., whither good wishes will go to the young people from the Butte friends of Mr. Hammond, who may be considered a Butte product, for he came here with his parents when one year old from Austin, Nev. He graduated from the Butte High School. The wedding took place on Christmas morning.

—We had two tables at the Tech alumni banquet in January. Bill Kelley made a special trip over from New York and apparently hasn't changed a bit since 1909. Arthur Morrill was also present—fresh from the Orient; but three years appears to have been insufficient to raise a queue.

No account has as yet been received from those of our class who were present at the Pittsburgh reunion, but just as this letter is going to press the secretary learns that 1909 captured the banner for the largest class attendance. Hurrah! Show what Boston can do at our local dinner and Tech Show performance on April 17. —From the secretary's point of view, this class letter would be decidedly incomplete without reference to the arrival on January 21, 1915, of Carl W. Gram, Jr.

No bills for dues have as yet been sent out for 1915, but checks for same are in order and very acceptable.

Address Changes

Anthony A. Bonzagni, 57 Falcon St., East Boston, Mass.—George W. Bowers, 1414 West 85th St., Cleveland, Ohio.—Grenville T. Bridgeman, 503 Market St., San Francisco, Cal.—Clarence J. Brown, 629 Security Bank Bldg., Minneapolis, Minn.—William H. Camp, 1124 South First St., Louisville, Ky.—Kenneth J. Campbell, Van Brunt-Overland Company, Sioux Falls, South Dakota.—Richard L. Cary, 300 Club Road, Baltimore, Md.—M. Stanley Clark, 605 North Main St., Jamestown, N. Y.—Nathan L. Coleman, 449 East Third St., Los Angeles, Cal.—Albert K. Comins, 23 Richardson Ave., Wakefield, Mass.—Chauncey H. Crawford, 14 Park View Apts., Nashville, Tenn.—James H. Critchett, 19 Sugar St., Niagara Falls, N. Y.—Ridsdale Ellis, 1626 Lytton Bldg., Chicago, Ill.—Matthews Fletcher, 810 Fletcher Savings & Trust Bldg., Indianapolis, Ind.—Bernard R. Fuller, 664 East 29th St., Paterson, N. J.—B. Edwin Hutchinson, Grand Crossing Tack Company, Chicago, Ill.—Louis Jacoby, Gray Apts., Wilkesburg, Pa.—Reginald L. Jones, 434 West 120th St., New York, N. Y.—Austin D. Keables, 14 Hoyt Ave., Lowell, Mass.—Mark E. Kelley, 30 Beckett St., Peabody, Mass.—Frank S. Lovewell, 726 Y. M. C. A. Bldg., Providence, R. I.—Lieut. David P. Marvin, U. S. R. C. *Manning*, Astoria, Ore.—George T. Palmer, College of the City of New York, New York, N. Y.—Joseph W. Parker, 5 Corinne Road, Fanueil, Mass.—Mrs. Carroll Paul, 1912 St. Charles Ave., New Orleans, La.—F. Gardiner Perry, 8 St. James St., Newton, Mass.—Claude T. Wilson, 1295 Pacific St., Brooklyn, N. Y.—Ira W. Wolfner, 248 Randolph Ave., Peoria, Ill.

1910.

CHARLES E. GREEN, *Sec.*, 83 Newbury Street, Boston, Mass.

Course I will be interested in a letter received from Jack Babcock about Christmas time, excerpts from which follow:

While I was very glad to hear from you, I am forced to admit that I have no news of interest for the *REVIEW*. The only 1910 men whom I have seen at all lately are Otto Rietschlin and Abb Allen, both of whom have now returned to the United States. Allen was married a few months ago.

The Technology Club of Lower Canada had a smoker a few nights ago here in Montreal, but there were no other 1910 men there, and, in fact, there were no representatives from any classes later than 1910. I think the war must have frightened away from the British Empire all recent graduates. Business prospects up here at the present time are not very bright, although I think each bit of favorable news of the Allies' doings, boosts business a little in Canada. Several months ago one of our resident engineers resigned and went over with the First Contingent from Canada. However, I think very few of these men have reached the front, as I received today Christmas cards from Salisbury Plain, where the Canadian contingent is completing their military training.

Believe me, I shall be very much interested in seeing the progress on the New Tech buildings, as I have not been down to Boston since construction was actively started. If I get a chance I shall look you up in the course of a month or so.

I seem to be able to get more news from Course II men than from some of the others, probably because I am in their line of work and so see the boys more frequently, although all the Course XIII men are live wires when it comes to sending in news.—Dean Peabody married January 30, Miss Marjorie Roberts. They are living at Reading, Mass. Peabody is on the mechanical engineers staff at Tech.—I heard indirectly that the jovial Luke Sawyer had been home on sick leave, but was recovering and had gone back on the job again.—I had an interesting and most welcome letter from Hub Reynolds recently; he seems to be getting up in the world. Parts of his letter follow:

Just picked up the last REVIEW and I thought I would better let somebody know where I am. I have left the National Lamp Works of the General Electric Company and am now manager of the illuminating department of the F. Bissell Company, Toledo. Run into Jack Tuttle once in awhile and he is as full of health as ever. Do not seem to meet many of the old gang out this way but I manage to get to some of the reunions once in awhile. I hoped to see all the old gang at the reunion this year, but it seems to have been put off another year. If you hear any news from any of the old Course II crowd will be mighty glad to have you pass it along. Do you ever hear from Luke Sawyer? Have not heard from him for years and was just wondering if he is still on top of the earth.

Course VI men will be interested in hearing that Frank Hodges was married to Miss Myrma A. Draper of Westwood, Mass., in February.—The engagement of Miss Mary N. Perrin of West Pittston, Pa., to George P. Lunt, Course X, has been announced. Good work, George!—Course XIII men can wallow in news in this issue, for the inseparable "Karl" and "Kiddo" are both contributing. "Kiddo" Torrey, erstwhile assistant superintendent for E. B. Badger & Sons Company, of Boston, manufacturers of chemical apparatus, has been advanced to the charge of the field work erecting chemical plants, and is now in Bay City, Mich., trying to get a lot of apparatus making smokeless powder before the war is over. "Kiddo" is still negotiating his "three square" a day in single blessedness, to the best of the writer's knowledge and belief.—Karl Fernstrom sends in much news in this most interesting letter headed Columbia Plate Glass Company, Blairsville, Pa.:

As you can see we are busy here making plate glass—and plenty of it, too—about four million square feet a year and all stuff above the average in quality. I have been here fourteen months and am now just what I was when I arrived here, namely, assistant superintendent. For the past two weeks though I have been struggling to fill the superintendent's place, as he has not been here. Last June I brought an electro-chem "grad" here, class of '14, Ernest C. Crocker, and together we do have great opportunity for work and arguments. He is chemist for us and we have just finished constructing a laboratory for his work so they are at least worrying along. Our problem here is remodeling the plant and operating systems to cope with an increase in production of from one million and a half square feet a year to close to four million.

I have been on several times to the Western Association of M. I. T. at Pittsburgh and have run across several 1910 men. Henderson, '10, is with the Westinghouse Electric and Machine Company. He informed me he had been recently married, in August, I believe.

"Kiddo" Lorrey dropped me a line along with your note for which I was grateful.

I have been away and isolated from all you fellows for so long that it seems very nice to hear from you even in a newsgathering campaign. I hope this note may help some. Give my best to all and the first opportunity I get to fall in with one or one hundred of you all I will do so. I am still very much single and more singular than ever. Being up here in the coal mines and foothills is not conducive to matrimony from the viewpoint of the fair sex and added to that, personally, I don't like the wilds and labyrinths of the blazing cities, so what is the use of thinking further along those lines. Anything of the sort would only lead to more war. With best regards to every one and an appeal of news of one "Skinny" Chapin my old "soul mate" (*Gosh how we fought*).

—"Beiny" writes in from Washington, D. C., saying that he is very busy and making a go of the contracting game. He advises every enterprising Tech man to try it. He says "Geg" was down visiting him recently while investigating the Bureau of Standards. They seem to have survived the investigation. Beiny says his latchstring is always out.—"Stump" writes in from New York City that he and Stein are doing their best to enjoy life together there. Stump has been selling Cochrane Feed Water Heaters and Steam and Oil Separators for the last two years, at 50 Church street, New York.—Dudley Clark is going to do the Panama Canal Zone in a four weeks' vacation trip in May. Here's hoping he doesn't come back too busted to take in the reunion.

There have been several inquiries as to what was being done about our five-year reunion, which is due this year. Most of the classes are postponing theirs until next year on account of the dedication of the new Tech buildings which takes place then. The Boston crowd have been so hard hit by the recent bad winter that there doesn't seem to be much enthusiasm about it here. I think it would be a good plan to have one for everyone within striking distance of New York, as most of the inquiries seem to come from that vicinity, and I am trying to get something started down there with that end in view, still hoping for a grand reunion in Boston when all the other classes have theirs at the dedication celebration.

Address Changes

Roy H. Abbe, 10 Arlington St., Newburyport, Mass.—Harold E. Akerly, Eastman Kodak Co., Kodak Park Wks., Rochester, N. Y.—Abbott Allen, Box 158, Dunellen, N. J.—Roy M. Anderson, Washington State Penitentiary, Walla Walla, Wash.—Clifford S. Ashley, 2270 Washington Ave., Bronx, New York, N. Y.—Jose D. Baldwin, 4151 South Ashland Ave., Chicago, Ill.—Edwin C. Ball, 20 Marathon St., Arlington, Mass.—George E. Batcheller, Akron Tire Co., Inc., 1612 Broadway, New York, N. Y.—Albert J. Beach, 21 Burnham St., West Somerville, Mass.—Hiram E. Beebe, Bank of Ipswich, Ipswich, S. D.—Herman Behr, Compensation Insp., Rating Board, New York, N. Y.—Frank F. Bell, Bristol, Bucks Co., Pa.—John M. Bierer, 350 Chestnut Hill Ave., Brookline, Mass.—Robert J. Boltz, Boltz Clymer & Co., 15th & Lehigh Ave., Philadelphia, Pa.—Robert S. Breyer, University

Club, Los Angeles, Cal.—Leroy E. Briggs, 129 Waverly St., Providence, R. I.—Robert F. Burnett, 60 Brackenbury St., Malden, Mass.—E. O. Christiansen, 500 Commercial St., Boston, Mass.—Dudley Clapp, 1330 Land Title Co., Philadelphia, Pa.—George H. Colburn, 210 Brown St., Waltham, Mass.—Alva B. Court, Asst. Naval Constr., Navy Yard, Philadelphia, Pa.—Harold N. Cummings, 21 West Promenade, Auburn, Me.—Raymond H. Fellows, 254 Warren St., Roxbury, Mass.—Harrison W. Flickenger, King Edward Apts. E. E., Pittsburgh, Pa.—Elbert D. Greene, Box 644, Pueblo, Colo.—Lester C. Greenwood, Augusta Me.—Henry A. Hale, Jr., Amer. Mut. Liab. Ins. Co., 50 State St., Boston, Mass.—Earl R. Hamilton, Fall River Gas Wks. Co., Fall River, Mass.—Guy N. Harcourt, 429 West Bunghurst St., Philadelphia, Pa.—W. Burton Hargraves, 7 Eliot Place, Jamaica Plain, Mass.—Paul S. Hopkins, care of Ernest Edwards, Chatham, Ont.—Edw. S. Howe, Kingston, Mass.—Bradley Jones, Box 15, Northfield, Vt.—John Lodge, 50 Willow St. Brooklyn, N. Y.—Carl H. Lovejoy, 607 West 136th St., New York, N. Y.—Ruluff D. McIntyre, Clayton, Berkshire County, Mass.—Mrs. Ralph H. Mann, care of Gloucester Nat'l Bank, Gloucester, Mass.—G. Bergen Reynolds, 120 Chestnut St., Rochester, N. Y.—Herbert G. Reynolds, F. Bissell Co., Toledo, Ohio.—John H. Ruckman, The Woodley, Washington, D. C.—French P. Sargeant, 638 Elm St., Arlington, N. J.—Chris. A. Schellens, 238 Ocean St., Lynn, Mass.—Harold Sharp, 179 Bay State Rd., Boston, Mass.—Carroll H. Shaw, Sheboygan Ry. & Elec. Co., Sheboygan, Wis.—Allen E. Shippee, Adirondack Elec. Pr. Corp., Oneida, N. Y.—Francis B. Silsbee, 51 Brattle St., Cambridge, Mass.—Ralph A. Smead, 199 Hamilton St., Albany, N. Y.—Otis S. Smith, 206 Gilford Ave., Laconia, N. H.—Sydney I. Snow, care of San Diego Union, San Diego, Cal.—Stewart S. Southgate, 718 Main St., Worcester, Mass.—Arthur L. Stein, 179 Marcy Ave., Brooklyn, N. Y.—Howard M. Trueblood, Box 274, Haverford, Pa.—Charles E. Ware, Jr., Farmington, Ark.

1911.

ORVILLE B. DENISON, *Sec.*, Hotel Standish, Worcester, Mass.
HERBERT FRYER, *Asst. Sec.*, 1095 Fellsway, Malden, Mass.

Twenty fellows, loyal and true, seated themselves at Louis's Café in Boston at promptly 6.11 p. m. on the evening of Saturday, February 20, the occasion being an informal class dinner. Despite the rather small number of 1911 men present, the dinner was of a most enjoyable character and reminiscences flew here and there as the dinner progressed. The well-named "Boston Boosters" of our class arranged and carried out the details of the dinner, meaning by the "boosters" the following: Frank Wood, Ted Van Tassell, Lloyd Cooley and Bert Fryer. Following the dinner an adjournment to the Gaiety Theater was effected, at which place the diners

were entertained by the winning wit and dashing deshability (Franco-American word) of one of the Columbia Wheel's best burlesque offerings.—Marc Grossmann had charge of the 1911 delegation at the Pittsburgh convention, and a general good time is reported. Details of the event will be found elsewhere in this issue of the REVIEW.—Another slump has apparently hit the 1911 matrimonial market, judging by the recent lack of news along the line mentioned.—Mr. and Mrs. Frank G. Smith are pleased to herald the birth of a daughter, Earla Harriet Smith, on February third in Waterbury, Conn. Congratulations, Frank!—Henry Dolliver, in a recent letter to the secretary opens the epistle with the announcement of his engagement to Miss Marguerite Coburn of Cambridge, Mass. In his letter he also says:

Am still on the payroll of the Aberthaw Construction Company, being at present located with them at the Fore River Shipbuilding Corporation in Quincy, where we are putting up a four-story steel, brick and concrete storage building.

It may be well to add that he closes his letter with a modest admonition to the secretary that he at least ought to join the ranks of the "nearly-marrieds."—A breezy letter from D. P. Allen, II, reveals the following:

At last I've got some news of sufficient interest to justify writing you. You've been getting news of this variety ever since 1911 chased out of Rogers with a sheep-skin under its arm, so it won't be so terribly shocking. I've done it, too! I'm engaged! Going to finish the job up this April. You're next, it seems to me. The young lady's name is Mary Rolfe and she hails from Ardmore, Pa. I'm still on the same old job. Experimental Water Gas plant of the United Gas Improvement Company here in Philadelphia. We live in hopes, you know. Some day I'll either die or get promoted.

—Had a characteristic letter from Ray Lord, VI, than whom 1911 boasts no better correspondent. As usual his letter is newsy, so here it is:

In spite of a bad headache—no that's not the reason—your complaint about the psychological journalistic depression in 1911 news made me remember that it is my turn again. Well, the most important piece of news must come first. Unto us at Los Angeles, Cal., was born Marion Elizabeth Lord, September 14, 1914. A better baby there is not—nay, not in seven states. While these sentiments are not truly Rooseveltian, still "my hat is in the ring!"

The foundry on which I was working in Los Angeles took off its first heat October 9 without trouble of any kind. My work was not entirely completed, however, so we did not leave for the East until November 19. We spent a little while in San Francisco at the Fair Grounds seeing what we could, as the chances of another trip West this year looked dubious. After a quiet and uneventful trip—in spite of the presence of a two-months' old baby—we landed in Chicago in time for Thanksgiving dinner. And here we are yet and, I hope, here we will be for many moons. Continuous travelling is O. K. for some of you "white hopes" but not for a man blessed with a family—except of course a trip once in a while to rub off the tarnished spots is welcome.

As has been remarked several times before in connection with Lord's letters, it would be a welcome surprise for the secretary to have frequent letters of the sort from all the 1911 men. Let's go!—Percy Rideout has forsaken Mississippi to take up his abode in San Antonio, Texas. Under date-line of the latter city he writes:

Tiring of my sojourn in the land of cotton I betook myself to the land of cattle. Perhaps you think that there is not much difference, but that is because you do not know that the fighters abroad can eat cattle but not cotton. Anyway the Yazoo of historic fame was rising rather rapidly and I thought that my famous swimming qualities might have waned a bit since the days of 1911. Meanwhile there is an object to this letter if you can't find it. I want you to be kind enough to tell me if there are any Tech men in this vicinity. I would be interested to see some of the breed again.

Of course you don't care what I am doing here so I will tell you. The Mississippi Post Road being too slow, the U. S. Department of Agriculture sent me here to tell everyone else how not to build the seventy-mile Post Road from San Antonio to Austin, Texas.

—The following clipping dated January 18, from the *Boston Globe*, stating that the appointment of Carl G. Richmond is confirmed, will be of interest to all:

The City Council tonight unanimously confirmed the appointment of Carl G. Richmond to be city engineer and superintendent of street, water and sewer departments. Under the new city administration these departments are combined under one head for the first time.

Mr. Richmond was graduated from the Massachusetts Institute of Technology in 1911 and since has been in the employ of the Massachusetts Highway Commission. He was in charge of the road improvements at Swampscott Beach the past summer as resident engineer, and previously was in charge of the state highway construction in Athol and Orange. Before naming Mr. Richmond, Mayor Curtis received very high indorsements of his work from many sources.

Accompanying the "story" was a picture of Richmond. Fine work!—The following card has been received from E. H. Kruckemeyer, IV: Edward H. Kruckemeyer, Architect, announces that he has established an office for the general practice of the profession, 701 St. Paul Bldg., No. 111 East Fourth Ave., Cincinnati, Ohio. Best of success to him in his new venture!—Harold Jenks announces that his wife and he are rejoicing over the birth of a son, David Sydney, on February 11. An appropriate day of the month for a 1911 "midget" to be born!—"Bunny" Wilson is still with the Aluminium Company of America, although he has been transferred from Pittsburgh to Massena, N. Y. He writes from the latter place:

I came up here the first of the year as assistant superintendent in charge of a new plant for the reduction of aluminum. As I have been very busy getting this plant into operation it was impossible for me to attend the Pittsburgh reunion. This place is just as far north as is possible and still be in the state of New York. This—of course—means that we get touches of what even the most fearless admit to be real winter weather. It is on the whole, however, very pleasant but carries the one tremendous disappointment that I do not get a chance to see or mingle with any of the old crowd.

—Bill Coburn writes that he has been appointed sanitary engineer to the American Woolen Company to do work in accident prevention, industrial sanitation and occupational disease prevention. He is located in Lawrence, Mass.—Now for a few address changes.

Address Changes

John F. Alter, 68 Newbury St., Lawrence, Mass.—Herbert A.

Angell, care of C. C. Colburn, 617 Corbett Bldg., Portland, Ore.—Ormond R. Bean, 1442 Pearl St., Eugene, Ore.—Rafael A. Beckman, Parral, Chihuahua, Mexico—Austin W. Brooks, Home Telephone Co., Jacksonville, Fla.—James R. Carpenter, Consolidated Fuel and Allied Companies, Black Hawk, Utah—William H. Colburn, 55 Jackson St., Lawrence, Mass.—Mitchell Coffin, care of S. M. Ryder & Son, Niagara Falls, N. Y.—Rufus Crane, University of Illinois, Urbana, Ill.—Irving C. Creighton, 24 Helen St., Saranac Lake, N. Y.—Allston T. Cushing, 75 McMunn Ave., Pittsburgh, Pa.—Albert L. de Romana, P. O. Box 30, Schenectady, N. Y.—Henry F. Dolliver, 18 Washington St., Quincy, Mass.—Kenneth W. Faunce, 20 Kirk St., West Roxbury, Mass.—Henry C. Frisbie, Cornell, Wisc.—Richard H. Gould, 140 Nassau St., New York City—Julian S. Gravely, 205 Rawson Road, Brookline, Mass.—Fred C. Harrington, 267 Boylston St., Brookline, Mass.—John A. Herlihy, 11 Kerwin St., Dorchester, Mass.—Harold G. Jenks, 183 Cross St., Malden, Mass.—Edward H. Kruckemeyer, 701 St. Paul Bldg., Cincinnati—Thomas R. Lathrope, U. S. Sanitary Division, Ancon, C. Z.—Raymond H. Lord, 3427 No. Harding Ave., Chicago, Ill.—Roger P. Loud, 87 Commercial St., Weymouth, Mass.—Morell Mackenzie, 149 Irving Ave., Providence, R. I.—Roy G. MacPherson, 104 Marlboro St., Wollaston, Mass.—Harry L. Manley, 302 West 22d St., New York City—W. J. Seligman, 21 Fairbanks St., Brookline, Mass.—Frank G. Smith, 79 Waterville St., Waterbury, Conn.—Peter D. White, 970 Park Ave., New York City—Gordon B. Wilkes, 219 Harvard St., Brookline, Mass.—Irving W. Wilson, Aluminium Co. of America, Massena, N. Y.—Edgar L. Woodward, B. & M. R. R., North Billerica, Mass.

1912.

RANDALL CREMER, *Sec.*, care Snare & Triest Company, Cruz Grande, Chile, So. America.

JOHN E. WHITTLESEY, *Asst. Sec.*, 10 Regent Street, W. Newton, Mass.

It has been suggested that our class get out some statistics. I think it would be both helpful and certainly very interesting. I should like to hear from some of you regarding this and especially if there are any suggestions or objections.

Also there is one other thing on my mind. If any of you 1912 men hit Boston for a day or so, and there have been quite a lot lately, come out to the job and see the "New Stute" in Cambridge. You will find either "Keb" or myself at 112 Charles River road and we will be only too glad to tell you or show you all about them. They have nearly completed several of the buildings. The new Tech man is surely going to study in style.

Mabbott II has left the automobile business at the Peerless Factory and has temporarily retired at his home in Conn.—Mr. and Mrs. "Carl" Rowley, so I understand, are leaving Boston for

Cleveland, Ohio. "Carl" is still with the H. W. Johns' Manville Company and has been looking out for their insulating material.—I ran across Albion R. Davis the other day. He is with the Concrete Steel Products Company here in Boston.—Busby and Grant have both left Stone and Webster. Busby is teaching at his old high school and J. Seeley Grant is in the real estate business in Boston.—Max Mason and Ed Crowley are working for an electrical concern in Boston.—C. L. Tuller is with the Ford Motor Company in Detroit.—G. A. Robinson has ventured in business for himself, but we have been unable to get full particulars as yet.—Mrs. Mary Winchell Jenkins announced the marriage of her daughter Rose Mary to Mr. Harold Harris Sharp on Friday the fifteenth of January, El Paso, Texas. At home, Santa Eulalia, Chihuahua, Mexico. We hope his domestic affairs are more peaceful than his surroundings.—Chester L. Dows confessed up in a breezy letter that he was married last fall, October 7, 1914, to be exact, to Miss Lelia Frances Spofford of Melrose Highlands, Mass.

I am still with the National Lamp Works in Cleveland and like as well as ever. There are a number of older and newer Tech men with the National and plenty of opportunity to talk over old times.

—"Fritz" Shepard was married on January 27, 1915, to Miss Caroline Rothwell Clark at the New Old South Church, Boston. Fritz tried to sell us some storage batteries for the New Institute buildings a while ago but when he found out that a lot of the new equipment was being given, he wasn't nearly so interested.—Allen Holmes Kimball, California, '09 and M. I. T. '12 was married December 29, 1914, to Miss Helen Louise Wakefield of Dorchester. He is now professor of architecture at the University of Iowa.—John Hall, XI, writes that he is engaged to Miss Lillie Morden of Long Branch, N. J. where he is health officer. He adds:

This is a seashore resort with a population from thirteen to fifty thousand and where no constructive health work had ever been done. I have had a great many interesting experiences, learned a great deal and can see a few places at least where the work done has amounted to something.

We learn with deep regret of the death of Robert E. Whipple on March 2, at Greenville, N. H. We print the following account from the *Boston Globe*:

Robert E. Whipple of Beverly died at Greenville, N. H., March 2, aged 21. He came here just before Christmas, intending to benefit his health.

Mr. Whipple graduated at Massachusetts Institute of Technology with honors in 1912. He taught for a year at Tech and then went to Providence, where he was in charge of the experimental laboratory of the Providence Tool Company. He was taken ill with pneumonia there and never recovered from the effects.

At the age of 14 he started a towel supply business in Beverly and kept up the business while a student at Technology. He leaves his father, wife and one brother.

Address Changes

H. A. Babcock, Northwestern Univ., Evanston, Ill.—F. W.

Barker, Jr., Benzoil Products Co., Frankford, Phila. Pa.—J. L. Barry, Jr., 181 Buckingham St., Waterbury, Conn.—A. T. Bemis, Punxsutawney, Pa.—D. E. Bent, Mo. Valley Lt. & Pr. Co., El Dorado Springs, Mo.—F. D. Bishop, 19 Foster St., Springfield, Mass.—J. A. Boyer, 37 W. 5th St., Jacksonville, Fla.—F. N. Breed, 615 Washington St., Brookline, Mass.—W. H. Coburn, 396 Ward St., Newton Centre, Mass.—C. L. Dows, 140 Stratmore Ave., E. Cleveland, O.—J. C. Freeman, 24 Walker St., New York, N. Y.—I. S. Joseph, Owens Bottle Mche, Co., Toledo, O.—T. F. Kalbfleisch, Jr., 12 School St., Glens Falls, N. Y.—B. H. Morash, G. E. Co., Schenectady, N. Y.—W. W. Mowery, 57 W. 127th St., New York, N. Y.—J. A. Noyes, 3707 Grand Ave., Des Moines, Ia.—L. M. Sandstein, care of W. T. Morse, 90 West St., New York.—R. T. Bailey, Kent, O.—J. M. Barnard, 4 Ocean St., Ashmont, Mass.—H. S. Benson, 97 Sargent St., Melrose Hlds., Mass.—S. Borovoy, 12 Olmstead St., Jamaica Plain, Mass.—K. H. Brown, 37 Chester St., Watertown, Mass.—K. Cartwright, 24 Park St., Wakefield, Mass.—L. W. Chandler, 130 The Riverside, Dayton, O.—J. A. Cook, 3210 Arthington St., Chicago, Ill.—M. M. Cory, Concrete Steel Co., 53 W. Jackson St., Chicago, Ill.—S. L. Day, 1010 1st Nat. Bk. Bldg., Huntington, W. Va.—P. Drewson, 1094 Dean St., Brooklyn, N. Y.—A. M. Eisenberg, 121 Homestead St., Roxbury, Mass.—C. L. Gabriel, P. O. Box 109, Scranton, Pa.—M. F. Graupner, Gen. Del., Grass Valley, Cal.—D. J. Guy, Whitworth College, Spokane, Wash.—J. F. Hakes, 37 W. Preston St., Baltimore, Md.—W. B. Hopkins, 36 Osborne Rd., Brookline, Mass.—H. O. Jenkins, 131 Cowper St., Palo Alto, Cal.—H. G. Jenks, 34 Upland Rd., Melrose Hlds., Mass.—P. R. Lawrence, Amer. Sheet & Tin Plate Co., Gary, Ind.—L. L. Lewis, Bar Harbor, Me.—F. C. Loweth, 1451 E. 52d St., Chicago, Ill.—C. McDonough, Gloversville, N. Y.—H. D. Mitchell, Racine Rubber Co., Racine, Wis.—M. A. Oettinger, 85 Westbourne Rd., Brookline, Mass.—O. D. Powell, 17 Dudley St., Haverhill, Mass.—J. H. Pratt, Liquid Carbonic Co., 3100 S. Kedzie Ave., Chicago, Ill.—H. M. Priest, 370 W. Church St., Elmira, N. Y.—G. A. Robinson, 317 W. 28th St., New York, N. Y.—A. H. Rooney, 71 Brookfield St., Lawrence, Mass.—J. B. Romer, 6209 Dorchester Ave., Chicago, Ill.—S. Schattschneider, 350 Ocean Ave., Brooklyn, N. Y.—F. J. Shepard, Jr., 134 Linwood Ave., Newtonville, Mass.—C. Stewart, W. Water St., Elmira, N. Y.—H. L. Woehling, 3701 Locust St., Philadelphia, Pa.—V. P. Yacoubyan, 46 S. 8th St., Philadelphia, Pa.—C. L. Tuller, 137 Ferris Ave., Highland Park, Detroit, Mich.

1913.

F. D. MURDOCK, *Sec.*, University Club, Hartford, Conn.
A. W. KENNEY, *Assoc. Sec.*, M. I. T., Boston, Mass.

Business first and pleasure afterwards is a principle we've all had impressed on us. Now we wish to cast no reflections on the

pleasures, joys, delights, consolations, etc., of married life; but if there is any one business 1913 men seem to have on their minds these days, it is getting married. Naturally, they are successful, too; and the supply of genuine whole-hearted bachelors is getting low. Several have left the ranks since the last REVIEW came out, and who should head the list but "Fat" Hoyt, I? Documentary evidence is in the hands of the secretary, if you don't believe it. Miss Dorothy M. Ruggles was married to Laurence B. Hoyt on the twentieth of February, in Wakefield, where the couple expect to live. "Boob" Merrill is the only witness who has reported to the secretary, and according to him it was a joyful affair.—The next Wednesday, February 24, the wedding of Miss Hester Young, Wellesley, '12, to R. C. Thompson, X, took place in Brookline. A large number of invitations were sent out, and many Tech men were present. Mr. and Mrs. Thompson will live at 87 Glenwood avenue, Brockton, after their wedding trip.—News has arrived that Miss Marguerite Parshley was married on January 12 to P. V. Kelley, XI, but no particulars were added.—Away back last September, Miss Virginia Beatty became the bride of John S. Selfridge, but the information has just arrived in the letter from "Wood" Selfridge given later on.—The announcement of the engagement of Miss Perkins, of Lynn, to E. W. Davis, VI, has also been made, so the number of "happy men" is merrily increasing.—The numerous friends and admirers of "Hap" Peck will be glad to see his name in this column. Miss Carolyn Ford of Rockland, Mass., was married to our esteemed classmate on March 27, at the Copley-Plaza, with Bill Brewster serving as best man. The couple will live in Millis where Hap has so endeared himself to the hearts of his townsmen that they have elected him to the school committee. As an educator, Peck is coming right to the front, and next fall will take charge of the mechanical engineering department at the Y. M. C. A. Coöperative School in Boston.

Our list of class babies grows. Another was added to it three months ago, but the secretaries only heard the news in time for the April REVIEW. Miss Margaret Templeton was born Christmas day to Mr. and Mrs. G. H. Buchanan, Course V.—A daughter, Mary Charlotte Sage was born September 1, in Bangor, Me., to Mr. and Mrs. Nath. Sage, M. I. T. 1913.—A genuine class baby!

Owing to the press of business not many of us crossed the continent to attend the big alumni meeting at Pittsburgh. We did have a few representatives there, however, and the following letter from A. W. Carpenter, X, tells a bit about it:

"The class of 1913 was represented at the Pittsburgh Convention by a group small in numbers but large in enthusiasm and Tech spirit. Dick Cross, VI, Chauncey Crawford, X, Lincoln, X, and myself were the 'thirteeners' present. The small delegation of recent grads. present is certainly not surprising, considering the stipends usually received by budding engineers, but good old

1913 has got to do better before we get a look-in at the cup awarded by the alumni each year to the class having the largest representation. Here's hoping we get the cup next year. We were seated at the class luncheon with the 1914 men of whom a like number were present. Some of the fellows who went to Pittsburgh have left for other parts. Among these are Wemple, X, Brodie, X, and R. C. Thompson, X. Wemple has left engineering to go into banking with his father and according to Crawford, wishes he were back in a town like Boston or Pittsburgh where 'one can find a chicken at least once in a while.' Don't they raise poultry in Illinois? 'Pete' Howes, X, is in Pittsburgh, I understand, with some oil concern, but I did not see him at the convention.

"I think it might be a good idea to urge the fellows, through the REVIEW, to attend these conventions, especially the one next year in Boston as they cannot fail to profit by them both in new ideas and in enthusiasm for 'dear old M. I. T.'"

"I'm sorry I haven't more to write of the little things which are always interesting but I understand that Cross is writing to Fred Murdock and so perhaps he will have more of interest."

If Dick's letter had shown up it would be sent to press right now; but it may appear later.

At the class dinner, last December, there was considerable conversation about having regular informal dinners somewhere in Boston, where all '13 men who may be in town can meet and have a pot of tea together. Finally, through the efforts of Bill Brewster and Bill Mattson, arrangements were made for a dinner at the Tech Club the evening of February 25, and letters were sent to all the men near Boston. Twenty-three men, counting "Buttsy" as only one, turned out and regaled themselves. After the meal they formed into a "Committee of the Whole" to settle the question of regular repetitions of what all agreed was an enjoyable evening. The last Thursday in the month was picked out as a suitable time and after some discussion as to the best place a committee of George Clark, II, and B. C. Cromwell, III, was elected to investigate the down-town possibilities and report to the associate secretary. They decided in favor of the Crawford House, Scollay Square, and it is hoped that every man has received a post-card telling him of the arrangements. Other classes have tried these meetings successfully; and any strangers in Boston on the last Thursday of the month will find some live '13 men at the Crawford House by 6.30 p. m. There are no formalities, no programs, just a chance get together for a good time one evening in the month. At the February dinner, after the matter of future dinners had been disposed of, several men told about the activities they are in. "Bill" Mattson told of some of the business of the Alumni Council, "Bunny" Brett gave the latest methods of the finance committee; and Fred Kennedy spoke of the "Rochester Experiment Conferences" of which he is one of the advisers.

Whether you're interested in alumni activities or just want to see the crowd, come around.

You may think it doesn't take courage to edit these notes; but the following sentence from a letter to the associate secretary shows that he takes his life in his hands when he includes original manuscript in the news column, for the correspondent just mentioned remarked:

If you should *dare* to publish one word of this letter, I'll certainly beat your head in with a club when I get the chance.

Some of the letters are more pacific, however, like the following from S. W. Selfridge, II, who is in Elmira, N. Y.:

Just a bit tardy, but I hope as acceptable as it is late.

Have been settled here ever since leaving the "stute" and find it quite to my liking. Building motor fire apparatus has a double interest in that you get lots of good automobile dope, besides the fire end of it; the latter being something that mighty few people appreciate. Fortunately for the last year in the engineering department my work has been anything but monotonous, doing experimental work of all sorts,—tire chains, spark plugs, carburetors, magnetos, and goodness knows what not,—not all of any one thing but a little of everything, lots of good dope, in other words. If you haven't already recorded this, put down in the big book that John S. Selfridge was married September 12, 1914, to Miss Virginia Beatty of Salt Lake City,—yours truly as best man. The wedding took place in Salt Lake City. Some wedding, too! Tell "Buttsie" Bryant that I can't agree with all his opinions mentioned in his eulogy on Salt Lake City in his Travelogue. I can back up my opinions and I'll bet Buttsie can't.

My contact with classmates has been quite limited. I manage to get a glimpse of Van Deusen and my brother once in a great while. Then I bumped into Eddie Hurst one day this fall in Elmira here. We had a grand old talk-fest and to reciprocate I showed Eddie through the works.

Last time we reported that Albion Davis, I, was in Keokuk, Iowa, improving the Mississippi River, which Peck thinks is beyond improvement. The following letter from Davis tells how they start to do it:

Considerable has happened since leaving Tech. Mrs. Davis and I left for the work here the middle of last July. Within two hours of the time we arrived at Keokuk, I was off up-river with Mr. Bolster and two other fellows. We went some forty miles upstream tending gauges and returned two days later. High water caused the hurried trip.

Since then the work has not been quite so strenuous. There have been several gaging trips up the Mississippi and a couple up the tributaries. The gagings are made from bridges (usually railroad bridges). This means working from the lower chords of trusses about 30 feet or more from water with the ties on a level with your shoulder and about two feet from you. With all the junk you know it is necessary to have along and a fifty-pound fish weight, it is about all a fellow can handle. Falling in from such a position would beat your stunt at Summer Camp last year.

There are four of us in the hydraulic department of the company. Mr. R. H. Bolster, a Tech man, is the head of the department. You have heard of the Stout method of estimating flow with shifting channel conditions and the *Bolster* method? Well, this is he. The other two fellows are older than myself and have been with the company for two or three years, and under Mr. Bolster for a year or more. The work here has kept me outdoors perhaps one fourth of the time. The office work is certainly most interesting. There are so many factors which enter into the hydraulic situation here that there seems to be no end to the problems that arise. I am working now on the rating curves for the turbines.

I am sending you under separate cover a pamphlet describing most everything about the plant. You may be interested in reading it.

Outside of the power plant and the work, Keokuk is rather a dull place. The only amusement there is in town is motion pictures. The congregations of the churches are small and listless. The whole attitude of the inhabitants is satisfaction with themselves and conditions as they exist. Whenever a new business tries to locate here, they have a faculty of discouraging it with restrictions and what not.

On the other hand, there is not that spirit of rivalry, that everlasting scramble to get ahead of the other fellow as there is in the East. Everybody is pleasant and sociable and we have made many friends.

Most of the real news this time comes from the statistical blanks sent out by the secretary, and as he has undertaken to edit these the rest of the space belongs to him.

This is a time of rejoicing for the class secretary, when letters are coming in almost as thick and fast as could be desired. John Hession, I, was not satisfied with an S. B. so he stayed for a master's degree, and now he is working for the Corrugated Bar Company of Boston. He writes:

Was glad to get your note and am enclosing my one spot for the greater glory and edification of *Thirteen*. I hope we show the Institute following what it means to be a *Thirteener* on the coming occasion. You might tell the fellows I am with the same concern still, or not exactly still, better say busy, as I have been since I left Tech last June. I like the work very well and the men I have to work with. I get my oar in on about everything that comes up for designing, and the experience is worth a good deal.

Miles Langley, I, our assistant class grind, sends out the tip:

Have just completed a contract with the college (Bowdoin) whereby the dignity of assistant prof. is to be imposed upon me at the end of the present term.

A rank imposition no doubt, but Miles bore the disgrace of the two P's (the rest were "C's") while at the 'Stute bravely, so he will pull through this all right.—F. H. Achard, VI, writes:

Things are going pretty well with me. Last summer I started in some research work for the 'Stute and am still there. The work is very interesting, especially now when results are beginning to appear. When I was down in "Phily" I saw Dr. Pender and he sent his best to all '13-VI men. My store of knowledge of '13 men is conspicuous by its absence, although I see some of them at times. Henry Randall was down New Year's, full of life as ever, and Ralph Thomas puts in an appearance at times, other than that I depend upon the REVIEW.

Please read Achard's last few words again, you who have not written the secretary at all . . . now won't you do your share?

At last we have succeeded in stirring up "Mons" Gagnon again. Your attention to "Mons," heavyweight champion cusser of Course II, and that means of the World:

This is the letter that I have been writing since last January or some earlier date; life history of Mons Gagnon follows: Three or four days after June 10, 1913, the author landed in Bayonne, N. J. at the Edible Products Co.; "Doc" Leavitt followed a week later. I was working as a shift foreman, days one week, nights the other. Either I got homesick, lovesick or malaria in a couple of weeks, and quit about July 24, 1913. A week or so later I went up north to work, but am now a gentleman and praying for the war to end and for the old Bay State to call her most famous son back. The bait is to be a job on which I can make a fair living for one.

It is with great grief that I note some of my former "students" falling by the wayside, snared by some fair damsel. After what happened to "Ding" Pinnock, I shouldn't be surprised if "Our John" B. Farwell also kicked the traces and got hitched.

Here are some of the "Mugs" that I should like to read the demises of or hear from them: J. B. Farwell, "Hap Darius" Peck, "Wop" Brewster, "Ken" Hamilton, "Runt" Loeb, Jimmie Russell, "Sir Isaac Newton" Clark, etc., also that "Toro-slinger," Eddie Hurst, philosopher and student.

Mons adds that Eddie Hurst has the key to the hieroglyphics in which the above was written. We have done our best without Eddie's help, and maybe the above is not what Mons said after all.—Everett St. John, II, in the engineering department of the Bell Telephone Company of Pennsylvania at Philadelphia, says:

Things are going O. K. but I guess I'll wait until 1918 before writing you my autobiography, in the expectation that there will be something worth while writing about by that time.

More than one half the class bears a silent testimonial to these sentiments evidently.—Ray Palmer, II, has overcome his diffidence about writing of himself. He is a mechanical designing engineer on the technical staff, Municipal Wastes, of the city of Chicago. He writes:

Probably seek other employment after April 6, election day, when the new mayor succeeds the present mayor, Carter Harrison.

Attended the alumni luncheon this noon, but as no other '13 men were there, I did not have to make a speech.

Who will ever forget Ray's remarkable oration on the memorable evening of June 5, 1913!—J. W. B. Ladd, I, is still in the post office department at Washington, but will shortly go into the manufacturing business.—Si Champlin, V, is still working for the "Campbell kid." He says:

Business is good. People persist in eating, in spite of war prices and calamity howls, and Campbell's soups fill the bill—also the stomach.

Go to it Si, you will be writing Campbell's poems ere long.—Talking about the soft jobs that fall to the technically educated youth, read this from Henry Hoornbeek, II, who is with the Arnold Print Works at North Adams:

Some different from the undergraduate years, believe me! Up at 5.45, at work at 6.30. It's great these cold mornings when the heat forgets to come on. I get through at 6 p. m., drafting about all the time, then, nothing to do until tomorrow.

It's hard to imagine it of Henry, but he confesses:

I have been going to dancing school, . . . yes, all the latest dances and then some.

Aren't you the rogue, Henry! . . . he continues:

There are two Tech men hereabouts: Wm. Eichorn and Ward Lovell. Lovell seems to be the main squeeze at a new plant they are putting up in Pownal, Vt. He looked as hardy as a woodchopper. Eichorn is state building inspector for this district and seems to be enjoying life from the way he is dolled up. He looks as happy as a two-year-old.

That is our old football hero, "Eich" all right.—Fred Lane (X):

Still on the job in organic—occasionally getting into contact things that were never meant to go together. Still have both arms and legs, however.

—Among the deserters from the service of straight engineering is H. R. Wemple, X, who is banking in Waverly, Illinois. He writes:

I have given up engineering at least for the present. When I left research work Crawford, X, swore I was a lucky dog to be getting away from Pittsburgh, it must be confessed it is pretty rotten as a city. News is colorless.

—Ward Lovell, II, is not, as we erroneously stated in the last REVIEW, with the Underwriters laboratories, but is acting superintendent at the Pownal Line Company, N. Pownal, Vt.—J. Warren Lovell, VI, is the man who is helping to reduce the fire waste in the country. He is inspector for the Boston office of the Underwriters' Laboratories, Inc.—S. R. Ramsdell, V, is instructor in chemistry at the Manchester, N. H., High School.—W. E. Caldwell, X, is "still trying to improve the paper business." He is not married but expresses the hope to be ere long. Good luck to you, Earle.—"Bob" Weeks, VI, looms up again doing strange things as usual. He is catenary supervisor, whatever that may be, for Gibbs and Hill, and is now employed on a job in West Virginia. There is no doubt but what we are an erudite lot. Here is still another pedagogue; George W. Duncan, II, is instructor in mechanical drawing at Cooper Union in New York City.—Charles Edison, IX, is employed at the Edison Laboratory, as assistant to his father, Thos. A. Edison.—Engineering was not lucrative enough for "Jim" Beale, XI, so now he is a banker, with Wm. A. Read and Company, the Boston bankers. We are glad to hear it, "Jim." You are just the man to finance the class's big ventures.—H. P. Fessenden, I, is taking a "young" vacation. "Fessie" has been a busy boy, as his letter shows:

The work I have been in is varied and has taken me through a good deal of New England and has been for the most part along the lines that I took up in school, which seems rather strange. I didn't do a thing for a couple of months after graduation as the long hard pull of the last of the senior year required a little vacation. About the first of August I went in to the office of Stone and Webster to try my hand at a little drafting. All the leading engineers say that a young man should have at least a year's drafting as a nest egg. So I started on "my peck of dirt" as it were. The work was along electrical lines and thanks to my "D. E. M."(?) I managed to get an inkling of the difference between a generator and a transformer. I was glad to get the practical side of the electrical work as I intend to go into hydro-electric work and the electrical work in Course I is not noted for its large range along that line.

This work lasted till the middle of October and then a chance came to make a short trip to Canaan, Conn., for a survey of a small hydro-electric plant there. The work consisted in making a large map showing the river for several miles above the plant and the general topography of the surrounding country. Also I had a dandy chance to get plenty of opportunity to do sounding work as a complete submerged contour map was required. The job wasn't so much in itself but it gave at a glance the whole story of such a plant on a small scale. I also went to Falls Village at every opportunity I had to see the new development they were

putting in there. When we got back from that job in the middle of December I went back into the drafting room and stayed there through the winter. In the spring work started on a new substation for the Boston "L" and I went out as inspector on the laying of conduit and also on the cable work later on. The work was varied and gave good ideas of the way in which the feeder and substation work of a large electric system is handled. The first of last August a party of twelve men started for Vermont and New Hampshire for an extensive survey of the Connecticut River in the region of Barnet more commonly known as Fifteen Mile Falls. The work was mighty interesting as it was the first accurate plane table work that has been done for the firm and nothing like the plane table work at M. I. T. We used no triangulation at all but ran base line all over the land and set up at transit points using the transit lines for orientation so the work was exceedingly accurate. Each plane table party had a level and two rodmen so the man at the table had nothing to do with finding the contours. The work progressed slowly at first but as the parties began to get used to the work things commenced to hump. In the middle of October another party was added so we had a base line party and two plane table parties. The base line party could well take care of the two plane tables and so I had a good chance to do a little plane table work myself. We kept on at the work right through the winter and there were fewer days that we had to lay off on account of the weather than there were in the summer and fall. It was fairly cold and at times got down to forty and forty-five below but the most of the time was around ten below in the morning and by noon it usually got up to five or ten above. It was mighty cool running a transit, believe me, but the work didn't suffer any.

We finally gave it up as the weather got too bad to pay to continue the work and just at present I'm taking a young vacation.

The informal dinner sure is one good hunch as it gives the fellows around Boston a chance to get together and talk over condition, etc., and I hope they will have them from time to time.

—Our "joint" classmates Mr. and Mrs. N. M. Sage are living temporarily in New Haven, Conn., where "Rusty" is working on a reinforced concrete building for the Aberthaw Construction Company.—J. L. Drummey, I, is an accounting clerk, at the Boston Freight Terminal of the New York, New Haven and Hartford Railroad Company.—Frank A. Reece, II, is in new work, machine designing, at Hopkinton, Mass.—We would expect a cheery note from our champion optimist, Lester Gustin, I, who won that title hands down. He is structural engineer and architect for the Boston and Maine Railroad. Architect did you say, Lester? He says:

I would like to write you a good long letter but my life just now is like a French military bulletin: "There's nothing of importance to report."

Al Gibson, III, is still cheerful, in spite of his accident. He writes:

Got my finger cut off in a machine, the middle one, and just got some 300 bones out of compensation insurance, so I can send my dollar on time. On the other 299 I think I'll pay "poor old Pinkos" and then get married and invest the rest in 4 per cent. bonds.

You are some financier, Al!

The fair is wonderful, *but* there is little there that's cheap, not even a cafeteria for "Buttsy" Bryant.

Joking aside, Al, we are sorry to hear of your misfortune.—Another hardworking man, Course I, of course, is taking a much

needed deserved vacation and rest. Henry Burr is spending the winter in Phoenix, Arizona. He reports that Ellis Hartford, II, is in Arizona, married and developing some cotton land in the southern part of the state.—Edgar Menderson, II, is still with Dodge Brothers of Detroit. He writes:

Transferred the middle of February from the engineering department where I had charge of experimental laboratory to sales department, where I have charge of road trouble men who are looking after the service of Dodge Brothers Motor Cars.

Judging from the number of men who are in purely business occupations, our class would have made excellent use of the new Course, XV, in business engineering, had it been available. Arthur E. Howlett, X, is engaged in the business of exporting American manufactured goods, with M. A. Hernandez, I, who is now in Buenos Aires, Argentine. The distance which separates Hernandez from his native heath is just a measure of his good judgment. This certainly has the appearance of being a very timely enterprise, here's good luck to you, boys.—Don Von Deusen, II, is in business also. He writes a very interesting letter.

For the past month or more I have been wondering about our triennial next year in Boston. Surely we ought to get a delegation back that will beat all records. 1913 while in the 'Stute was particularly favored I think in having a class spirit united in everything, there being no factions or cliques, which are bound to destroy the union of the class as a whole. . . . Hudson is a small town but quite a busy little place, perhaps known best for being the birthplace and home of "Evans Ale" and (Van's modesty will resent this, but here goes) "Van Duesen Sausage, Hams, Bacon, lard and produce." I am working into the business, wholesale flour, sugar, provisions and produce. During the winter season of five months we also do pork packing. A hog is really a dainty animal, fed on the choicest of Nature's gifts, with a family life ideal and beyond reproach, and with its sole aim in life to produce for its elder brother, man, the delicacies of the breakfast table. . . .

Quite some eulogy, Van, you have indeed caught the modern idea of romance in one's business.—"Walt" Byland, II, notes:

Rubber machinery is dull at present. We are making some heavy presses for making shells, also lathes as a side issue.

Edwin D. Pratt, I, is back at the Institute to finish some work for his degree. He has been with the well-known Childs Company, restaurateurs. Of his work with them he wrote:

The company hasn't found a fitting title for me so I guess "plumber" will do. My chief duties of late have been to stop leaks. The company has cut out over \$50,000 annual expense in the last nine months.

Of course this saving has nothing to do with the size of the orders which are now served. That is correct is it not, Ed?—And still more teachers; who would have thought it of Edwin Gere, I, now instructor at the New York Military Academy, at Cornwall on the Hudson, who confesses:

You and some others would surely laugh if you could have seen me teaching Business Law last term; I did that's certain.

We wonder if he imitated Homer Albers' facial expressions?

We believe you, Ed, but did your students?—Thomas J. Lough, I, is also teaching. He says:

In December last, the Cedars, Quebec, job was completed. This work was a hydro-electric development of 100,000 horsepower on the St. Lawrence River, involving 100,000 yards of concrete and 2,000,000 yards of excavation.

After returning to Fargo, N. D. to see his brother safely married, Tom says:

I obtained a position as mathematics instructor at the N. D. A. C. where I got my start. I'll be jiggling figures until March 25, when I hope to get back on construction work.

—Speaking of the hard times read this written on the train from Montreal to Quebec in Henry Randell's, (VI,) breezy style:

I am with the Shawinigan Water and Power Company who generate power, distribute it throughout the Province of Quebec, and with the balance of power from a 199,000 horsepower development manufacture calcium carbide. My work, which has to do with all branches of the business, takes me over the system most of the time and although I nominally have an office in Montreal, I only manage to get there a day a week. I also live in Montreal, if supporting an apartment is living. This apartment is "solo" as the English say. As regards "hard times" I have not felt the effects yet; in this particular business the depression is felt but slightly. For a binder will add that I am unmarried, have no expectations, and other things being equal will get no dinner this evening, and will talk French exclusively for the next three days (not exclusive French) as inside of two hours I shall be hiking for a hotel in a hachute.

—Harry E. Prentice, II, is located at Taftville, Conn., where he is engaged as a top roll coverer.—After emptying the pay envelope, most of us think that about all we are getting is experience. Alfred Katz, XI, is particularly favored in this respect. Here is a good letter from him:

Since August, 1913, I've been in the employ of the Commonwealth (Mass.) in the capacity of factory inspector. I have been assigned to the cotton mill district in the southern part of the state, with headquarters in Fall River. Despite the latter handicap I've managed to retain my health and physical well-being, although I've been simply buried in work since my arrival.

My duties consist in enforcing the many varied labor laws on the statute books by systematic inspection of the many industrial establishments in my district. It is a question of walking a mighty narrow chalk line, with strong labor unions on one side of you and stronger capitalists on the other—no cinch at times, let me add. The sanitary end of the game touches such problems as toilet and washing facilities, heating, ventilation, dust and fume removal and illumination. The field is extremely broad and full of opportunity for study. I'm acquiring no small amount of information on factory sanitation, management and methods, and law, which ought to prove of value some day. Add to this the work of safeguarding machinery and the study of industrial diseases, which touches in the field of medicine, and you have some idea of the mighty interesting occupation which takes the best time of the day (and night) and which yields a fairly satisfactory salary. I can hardly ask for much better in the way of general experience, although a bit removed from the field of pure engineering.

Socially I'm stagnant. We've recently started a small Technology supper club and meet once a month at one of the local hotels. This proposition is a growing one, and has prospects of developing into a Technology club.

You'll be interested to read that Burleson, I, is married and within the past few days has become the father of a seven and one-half pound baby boy, another class baby!

We knew of Burleson's marriage but here is a happy event that we are glad to learn about. Congratulations "Burlie!"—The Fall River contingent is alive all right, Arthur E. Hirst, V, notes:

Still at the old stand. Business is fair, but dyestuffs are scarce as co-eds at Tech. The company is treating me well. Have met eight M. I. T. men interned in this burg, two of them, Katz and Thomas, of '13. We meet and intend to boom the 'Stute, so keep your eyes on Fall River.

—Mortimer P. Allen, I, one of our masters of science, is a cost analyst for the Chicago Civil Service Commission.

Joseph Strachan, I, is back in New York, after five months in Savannah, Ga.—Wylie J. Daniels, XI, writes:

I am working for the Indianapolis Union Railway Co. We are getting ready for track elevation in the downtown district and hope to see a start made this spring. I believe it is considered the proper thing for a Course XI man to take up railway engineering work after graduation.

Yes, yes, such a course would meet with Pa Allen's strong endorsement.

There is quite an active M. I. T. Association here in Indianapolis. We recently had the pleasure of entertaining President Maclaurin, who explained to us the Harvard-Tech "Alliance." The hatchet was buried with impressive ceremonies. I was abroad last summer for two months and happened to be in Paris when the war broke out. The experience was certainly one to be remembered even though I didn't see any 42 centimeter guns in action. On my way home, I stopped in Boston for a couple of days about the middle of September. I saw several professors but none of the students were back. Copley square looked decidedly lonesome without them. I certainly agree that 1913 men should make every effort to have the triennial a great success.

Thank you, Daniels, we have just put your name on the "coming" list.—We are not without brave men as Henry Thierfelder's, I, recent exploit will indicate. He writes:

Not occupied at present; just returned from Mexico where Mexicans took my outfit while prospecting.

What you prospecting for Henry, trouble?—"Johnny" Welch, X, is in the sales department of the American Vulcanized Fibre Company, in Boston.—Edgar Taft, VI, our soldier boy, writes:

The idea of the "five year book" appeals to me because it would be fine if we all could only know what the others have done and are doing, and the book seems like the best scheme for doing it.

I have left the 'Stute (severed my connection I suppose is proper) and at present I'm working for the Asbestos Wood and Shingle Company of Nashua, N. H. This has nothing to do with anything we ever studied at the 'Stute but it's pretty interesting since something new crops up every few minutes.

—Charles F. Haglin, Jr., II, "comes across" with a nice letter:

After reading the long list of births, marriages and travels which have fallen to the lot of many of our classmates, I feel that life has been rather dull for me since I left Tech. My work, which has been learning the principles of contracting, with the Haglin-Slater Company, has taken up most of my time, although I did desert for two months last winter, which I spent in California. I went out by way of New Orleans. I arrived in town with a young Englishman from Winnipeg who also had never been South, so we "did" the town, that is, as much of it as possible in twenty-four hours. By the way, still being neutral, I should like to say that all

Englishmen are not so much asleep as one might suppose at first sight. I found that you cannot see New Orleans in one day and intend to go back as soon as I can. After twenty-four hours with "Winnipeg" I was glad to get on the train and start the long grind West. After spending three of the hottest, dirtiest days of my life riding through the "Great Southwest" I was mighty glad to get out at Los Angeles, and after cleaning up I was sure I had found the greatest place in the country. I could write pages on my short stay out there but this letter is already assuming the appearance of a book so I will desist and only say that if you have time to ride over about five thousand miles of California roads all the way from the Mexican border to San Francisco you will agree that it is "some place" from a tourist's point of view at least. I was sorry to miss Algernon Tuttle Gibson, the mayor of the Golden Gate in San Francisco. After I got back from this trip it took me quite a while to get into the nature of building work again, but I am very well anchored at present, and only hope that I will be able to make Boston for the five-year reunion.

You have the right idea, Charlie; we hope to see you next year.—C. W. Gotherman, VI, who is with the Pennsylvania Railroad writes:

Pardy, '18, and I were at the Westinghouse Works until February 5, last, when we came to Altoona. I was very sorry not to be able to help along with the Pittsburgh get-to-gether as I had hoped to. The new job was entirely "too new" to "ask off." The last time I heard from Lew Beason, VI, he was up on Ruby Mountain, Nevada, one hundred and fifty miles away from a railroad. It took a man ten days on snowshoes to get to the nearest post-office which is in San Jacinto, Nev. The nearest railroad station is Rogerson, Idaho. I prefer civilization, or even the *semi*-civilization, such as this town has on Saturday nights, to such conditions. The country surrounding Altoona is rather nice. It has an elevation of 1800 feet, and the crest of the Alleghenies is but twenty-five miles west. That means that there are lots of mountains around here, and good walking—except that its up hill, sometimes both ways. (?)

Speaking of the Pittsburgh reunion, it is needless to say that we were represented. "Dick" Cross, VI, was one of the live ones and he has been kind enough to say something about the good time. He writes:

"On Friday, at the class luncheon, there were E. R. Lincoln, C. A. Crawford, A. W. Carpenter, and I; there is very little to say about this affair, for it was the opening event, and nobody had yet warmed up to the occasion.

That evening at the smoker, R. J. Tullar came in from Sewickley and swelled our number to that extent. By this time several '14 men had come, so that we young ones did not feel so out of place among the throng of dignified and prosperous. L. B. Duff and Fred. Karns were very much there. The smoker, by the way, was one of the most successful affairs of that sort that I have been to in a long while. At the course luncheons we were so divided that I do not know exactly who attended, but there were no other Course VI men in that conference. We were fortunate in having several men there who apparently had attained some degree of success in the world, which made their remarks doubly interesting and pertinent.

Saturday evening, at the banquet, we did not sit by classes, and I am not positive just who were there, but remember seeing every-

body but Tullar. I do not know why I was so honored, but they put me in the midst of a particularly live bunch of '05 men, so there was no time to feel bored. The banquet was very successful, and the enthusiasm of everyone was inspiring; the presence of the ladies, no doubt, did a great deal to make its success complete.

J. Oppenheim of our class was registered, and I saw him once in the lobby, but do not recall that he was at any of the scheduled events. If you see anybody who attended in person, be sure to have him tell you of the initiation of Morris Knowles and one or two others into the "Yellow Dog Fraternity."

Thank you, Dick, let us know more about the "Yellow Dog Fraternity" sometime.

The Coast and Geodetic Survey seems to be very attractive to younger Tech men. Reuben Arey, I, writes:

Have been in the service now over two years and will probably stay for another year. A rather unique thing occurred during the month of December 1914 on the W. S. C. & G. S. S. *Bache*. There were six officers attached to her who had graduated, or attended M. I. T. at one time, namely, R. F. Luce about the class of 1904, Shack, Ober, Shaw, 1914, Milliken, '13, and yours truly. Some live outfit! Not often you get six of us together.

It is no wonder that they like the service; read A. S. Milliken's, I, interesting letter:

Your letter of February 28 reached me tonight after spending a couple of hours at the moving pictures (on Sunday—horrors!). However that and church are the only attractions in this burg. On week-days only moving pictures! Dear old "bean-town" would look good even if it meant walking through slush up to your knees. Ober, '14, Shaw, '14, along with four others have been here since the first of January enjoying the beautiful climate. Our work takes us about fifteen to twenty miles out into the Gulf where we endeavor to find uncharted rocks. This we have done and the next chart will look sick with shoals scattered all over what once was a fairly good channel. We leave in about two weeks for parts unknown although we do know that there are four places that we might be sent to namely: Two places in Alaska, Long Island Sound and Boston. We are shouting for Boston but according to reports there is more than an even chance of our being sent to Alaska. This remains to be seen, however.

Recently we took a trip to Havana, Cuba, and in two days attempted to take in the sights. Those familiar sightseeing cars of Boston were there waiting to take us around. While there we took in a "cock-fight," the national sport of Cuba, and then another night a masquerade ball. *Some* dance! and even better costumes. The men wore their hats while dancing and there was an improvised bar and lunch counter at the ball. It was midnight when we blew in and the dance apparently was just starting. Here's hoping I'm in Boston next year when the big show comes off. I receive *The Tech* and notice that the athletics are still up to the standard and improving all the time.

I imagine you are looking for matrimonial news from the class, but nothing doing here!

—This last is a pretty rash statement from such a susceptible youth as "Milly."—Raymond Elcock, XIV, is in Egypt, Pa. He writes:

I am with the association of American Portland Cement Manufacturers, doing efficiency work in cement mills at present. After June, I expect to be chemist in the new testing and research laboratory that they are going to establish.

Ben Thomas, VI, out in Webster Groves, Mo., is trying to "show" Al Pastene, V. The former writes:

Have heeded Pastene's "cry from the wilderness" *i. e.*, from East St. Louis—Am now trying to convince him of the superiority of the West over the East.

You must use more eloquence, Thomas, for Pastene notes:

Expect to be coming your way (Boston) a little later.

—W. E. Herron, II, is an agriculturist, at Inverness, Fla., where he is general manager of the Citrus Company Truck Growers Union, growers of citrus fruits, making a specialty of new groves on contract.—Albion Davis, I, is having his hands full watching the "Mississlopy" as Hap Peck calls it, out at the big Keokuk development. He notes:

Things have been rather lively the last month. We had a small flood which kept us on the anxious seat, for fear it might go higher.

—Phil Terry, X, writes:

I am at present chemist in the laboratory of a large soap concern, B. T. Babbitt & Company, Inc. There are four in the lab. and I am second man. The chief chemist is a Tech '08 man. A chemist's work here ranges all the way from boiler testing to first aid to the injured. We have much of this to do, and handle many quite serious cases among the employees, and are the "doctors" at the plant.

—Herbert B. Wood, II, is general assistant to the master mechanic, at the Everett Mills, Lawrence, Mass. He writes:

They call the work I'm doing practical work, getting practical experience, and they are quite right. It is so far away from Course II work that I'm afraid of getting cobwebs on the brain—better days coming.

—"Bill" Flanders, I, is in the civil engineering department of the Hooker Electrochemical Company, of Niagara Falls, N. Y. We have a nice note from him:

The idea of a five-year autobiography is a good one. It should appeal to everyone and receive the support of a large majority. Here at Niagara Falls and Buffalo we find that about one-half the resident Tech men are active in our Tech clubs. We have a strong club in Buffalo which includes the twenty-five Tech men at the Falls. Thirteeners seem to be scarce around here however. Personally I am working for the Hooker Electro Chemical Company in the engineering department. This last summer we put up a half million dollar addition in buildings and equipment. Since then I have been doing efficiency engineering in the mechanical engineering department. The maintenance problem plays a large factor in our work due to the damaging effect of chlorine gas and caustic soda upon machinery and equipment. I shall be in Boston for next year's reunion if possible.

—It looks already as if Course I was going to be "there" at our first reunion.—Roy Haynes, I, is with the Western States Portland Cement Company, of Independence, Kansas. He has a business position, travelling around, making contract letterings for paving jobs, concrete bridges, etc.—Frank T. Smith, III, has left the American Smelting and Refining Company of Perth Amboy, N. J., and is now doing temporary work in the mining lab. at the Institute.—Joe Tennant, VI, wrote the secretary a nice note, which is certainly of general interest:

Mrs. Tennant and I are in Boston en route from Rochester to home—the latter place synonymous with “Heavenly” Houston (Texas). I have severed my connection with the Rochester Railway and Light Company and am going to break into the business world.

Here, I have seen a number of our men. Time and space will not permit my mentioning details. We had dinner last evening with Hap Peck and Miss Ford, his fiancée.

We are going to sail from New York next week and stop over for about ten days in Havana on the way to Galveston—will probably be able to give you a '13 version of the Johnson fight if my better half does not rise in arms at my attending. My permanent address will be 405 Hadley Ave., Houston, Texas. We have a welcome there for any '13 men whose duty or pleasure brings them within a day's ride.

Rather unique, and interesting is the work which Lindsley F. Hall, IV, has been doing. He notes:

Just before leaving Tech I secured a position as draftsman on the Egyptian expedition of the Metropolitan Museum of Art. In June, 1913, I went abroad, and, after spending two summers in Europe, and the intervening winter at work in Egypt, I returned from England last November. This winter I am working at the Museum.

Despite the interference with his plans as a result of the turbulent times abroad, Roger Freeman's (VI) letter indicates that he is still cheerful:

After a pleasant sojourn of a couple of months at the 'Stute last Spring the powers that be eventually saw fit to come across and grant me a degree as of class of 1914. It is of course needless to remark where my sympathies lie.

I had intended to return to Germany for another year at the Technische Hochschule in Charlottenburg, after spending a few months in Paris. I was to have sailed about the same day that war was declared, which of course put a crimp in my plans. So since about the first of August I have been with my father's engineering staff assisting in designing and estimating various hydro-electric projects but chiefly learning how to erase. How many times can you re-erase ink on tracing cloth? The future calls for a continuance of the same although I hope by hook or crook to get out to San Francisco some time this year.

The mid-winter banquet at the Somerset was a great success. The several 1913 tables showed all kinds of action including capillary action at the table surrounded by “Johnny” Welsh, “Ted” Hersom, “Bill” Brewster, “Bill” Mattson, Clarence Brett and yours truly. Interesting how the battle with the world apparently increases one's powers of absorption! At a Thé Dansant at the Copley-Plaza recently I was bumped into by none other than Zenas Crocker. He was living up to his *Boston American* reputation and was certainly the cynosure of all eyes there.

This present storming of the Dardanelles has great interest for me as about a year and a half ago after travelling down across Russia, I sailed from Constantinople down through the Sea of Marmora and through the Dardanelles en route to Smyrna and Greece. The Dardanelles are so narrow that steamships do not attempt the passage at night. I believe that unless something very much out of the way happens, the allies will be a long time in reaching Constantinople that way.

Although Providence is pretty much of a Ford town some 1913 men must come through occasionally and I hope that those that do will look me up.

It is refreshing to hear about some line of work which is enjoying prosperity at this time.—J. B. Woodward, Jr., II, has chosen a live business for the present at least. He is computing draftsman at Newport News, Virginia, and writes:

I finished a year at Richmond College last June where I held down the job of acting professor of mathematics, and since have been here in this little seaport passing as a shipbuilder. I am one of eight Tech alumni,—one of them a lady—

in the employ of the Newport News Shipbuilding and Dry Dock Company. Three of us, not including the lady, are in the engine estimating department of the engineering division. The company is a big one and at present the yard is full of work and every shipway is full. The German auxiliary *Prinz Eitel Frederick* was in dock here two days ago and is still undergoing repairs. On March 16, we launch the big super-dreadnought, *Pennsylvania*. Next to the *Rivadavia*, I believe, she is the biggest ship ever built in America.

—Why so much emphasis on “the lady” John, you have started us wondering.—Allen Brewer, III, is still enjoying life, and working for the New Jersey board of public utility commissioners. He says in part:

The experience here is mighty good, even though I did try to be a “cussing miner” at the ‘Stute. I’m getting enthusiastic over public service work now because it is so general and interesting. Why, to be a good public service engineer you’ve got to be civil, electrical and mechanical engineer all in one. That is why I firmly believe that with the continued growth of this branch of engineering throughout the country it will only be a question of time before a number of colleges will start a course devoted to this work.

—Our old, field day hero, “Jake” Goff, I, just to prove that he is still alive, sends the following note, which is pretty long-winded for Jake:

Nothing to do but work.

Just as the last call for copy is being sounded, the mail brings several good letters. Here is a corking good one from Millard W. Merrill, who is with the Braden Copper Company, in Chile:

Just before I came here, at the outbreak of the war, the Braden Copper Company made a 12 per cent. cut in the salaries of all its men; otherwise conditions are quite normal, and in spite of the hard times caused by the war they have been making improvements and additions to the plant; at the same time have been carrying on quite a little experimental work. Nevertheless, the general business condition of Chile is very unsettled at the present time.

I left New York October 5, 1914, in company with five other men to come here for the purpose of carrying out leaching experiments on the Braden ore in view of developing a process for the extraction of the copper from this low grade ore, which should be cheaper than the smelting which is employed at the present time. The trip down, requiring about a month, was one continuous round of pleasure and enjoyment. We saw many new and strange sights, both interesting and educational. We stopped over one day at Panama and were able to make a superficial inspection of the canal. As soon as we got aboard the boat on the Pacific side we immediately came in contact with the Latin-American people and their customs. All the stewards and officers on shipboard, except the captain, mates and chief engineer, were natives. The meals were served according to Spanish ideas, and as for deciphering the menu, unless one knew Spanish, he would get a better feed at the “Tech Union.” As it was we had much sport in taking a chance on the different things and sometimes we fared better than others. We had opportunity to go ashore at many of the ports of call, along down the coast. Among others was Payta in Peru where we all bought *splendid* Panama hats, very *cheap*, as they are made by the natives a few miles back inland from this port. At Callao we had one and a half days so went up to Lima, stopped over night and gave the wonderful old Spanish city the “once over.” The camp of the Braden Company is about 240 kilometers by rail from Valparaiso. The first stretch of 100 kilometers from Valparaiso to Santiago is made in four hours on a 5’ 6” gauge steam railroad. Over this part of the line (owned and operated by the government of Chile) American-built Pullmans and vestibuled coaches are in service. This was an exceedingly picturesque ride, and at Santiago which is 2,000 feet above sea level, we stopped for a couple of days tak-

ing in the sights. Both here and at Valparaiso we found very good hotel accommodations. The next stage of the journey, about seventy kilometers over another division of the same railroad, brought us to Rancagua, through a very rich farming section. We passed by many large vineyards and orchards, and with the low green ranges of the Andes some distance back and still farther in the background the snow-capped peaks glittering in the sunlight, it certainly made an exceedingly pretty picture. At Rancagua, the starting point of the Braden Copper Company's railroad to the camp and mine, we found a dirty little town with mud in the streets from one to two feet deep (it being right at the end of the rainy season), and quite a number of so-called hotels, and a lot of very dirty huts and houses, the homes of the natives. However, the company owns at Rancagua quite a large railroad yard, a round house, machine shop, foundry and office building, this being the nearest point to the mine which is located on the line of the Chilean State railways. The trip from Rancagua to the camp, a distance of about seventy kilometers, was one that I shall never forget, the track winds and twists up towards the camp along a narrow shelf cut out of the side of the mountains. Practically all the way it follows a deep canyon. It is a 30-inch gauge line and the trains are drawn by geared locomotives. We left Rancagua in the morning at 10 on a fast limited freight and arrived in camp at 12 o'clock that night. The first part of the trip was through farming districts but very soon we commenced to climb and, all the way beyond kilometer 32, it is from a 3.5 per cent. to 4.5 per cent. up grade; the whole line from Rancagua to Milino abounds with exceedingly sharp curves, and there are no straight stretches of track more than 500 meters long. The last part of the trip was made by moonlight and, believe me, those deep rugged canyons and the snow-capped peaks looked grand in the shadowy moonlight.

The camp site where the mill and smelter are, is 7,000 feet above sea level and is located on a slope between two canyons which come together just beyond the camp. High snow-capped mountains surround us on three sides. The mine is situated about two miles up one of the canyons and is about 1,000 feet higher up on the mountain side. There is an electric railway connecting the mine with the camp, which hauls ore down to the mill and is also available for taking supplies up to the mine. The living accommodations here are very good, indeed; there are two of us in a very well-furnished room considering that we are in a mining camp. We get our meals at a hotel run according to American ideas for about \$23 gold a month. During the time from the middle of October to the middle of April the weather is generally fine; no rain and the sun shines practically every day. Even at that it is never uncomfortably hot at this altitude. During the winter months, especially June and July, they have an immense amount of snow here. Since I have been here my work has consisted of having charge of the operation of the experimental leaching plant on one of the eight-hour shifts. Most of the men under me are natives who speak nothing but Spanish, so of course I have had to get busy and study and pick up enough to handle the men. However, in less than a month I had got hold of enough to handle the men all right. I have also some Germans working for me who speak neither English nor Spanish so I had to brush up a little on my German. I am not in a position to say much of anything about the experiments that are being carried on here except that the concentrates which run 16 per cent. to 18 per cent. Cu, 19 per cent. Fe and 22 per cent. S. are roasted and the SO_2 produced thereby is used for the leaching of the calcines, then the copper is precipitated electrolytically. All the electric power used here is generated by water power and transmitted to the camp a distance of 36 kilometers at 35,000 volts, thereby giving very cheap power. Since I have been here I have been getting much valuable experience in large scale industrial experimentation and practical operation at the same time. As far as sports go we are pretty well provided for. The company has made two nice tennis courts here at camp and also at the mine; there is a great deal of interest taken in this pastime and sport. Riding horses are very cheap and the company has made arrangements so that they can be kept quite reasonably, consequently there is a good deal of riding done on the numerous mountain trails about here. There is no vegetation to speak of in sight of the camp, but by riding down the canyon some five kilometers one commences to find it and five more kilometers down we come to the baseball and athletic field that the company

has fixed up. New Year's day is a big holiday in these Latin-American countries and the company celebrated by having a big horse-racing carnival at the athletic field. There is quite a little social life in camp, there being some two hundred contract men here, and about thirty-five English-speaking families. I have met quite a number of Tech men here and they all gave me the glad hand of welcome and tried to make me feel at home. We have plenty of fine drinking water here but otherwise it is a "dry camp" so I don't know as the class of 1913 would have chosen this place to have held their Senior dinner even if they could have got here. I am enjoying my work and the life here very much but even at that I should like to be where I could hear a good big three times three for M. I. T. once in awhile.

—Here is another, from Walter Brown, XI:

As you probably already know, after graduation I went in as engineer with the Massachusetts State Board of Health and remained there until June 14, when I received an appointment as sanitary bacteriologist in the United States Public Health Service. My first orders were to proceed to Pittsburgh, Pa., for service on an investigation which was being made of the condition of the Ohio River. I found E. E. Smith there, working on the investigation, and I also had an opportunity to see R. J. Tullar, J. C. Goff, and H. R. Wemple, all members of our class who were working in Pittsburgh. I remained there until June 8, when I was ordered to Cincinnati, Ohio. At Cincinnati I embarked on a houseboat, together with three others in the Public Health Service, and we started on a three and a half months' trip down the Ohio River to Cairo, Ill., a distance of practically 500 miles. We had quite a nice little laboratory fitted up on board the boat and I was given charge of this with one other man to help me. We made stops at every city and town along the way and at every place two of the men made a sanitary survey, while I made bacteriological examination of the water and milk supplies as well as bacteriological and chemical examinations of the river water. Although the weather was a bit warm we had a very pleasant trip and arrived at Cairo, Ill., on September 27. I was then ordered to Paducah, Ky., to take charge of one of the branch laboratories on the Ohio River investigation and remained there until it was closed, October 22, and I was ordered here to Noblesville, being transferred from the Ohio River investigation to the waste disposal division of the Public Health Service. The work here is an investigation of the treatment or disposal of straw board waste, an experimental plant having been constructed by the government for this purpose. I arrived here at Noblesville about the first of November and about three weeks later went home to Boston for a three weeks' vacation, and while there attended our class dinner at the Oxford. On my arrival back here I was put in charge of the operation of the experimental plant and expect to be here for some little time. I have a small laboratory where I do some chemical work and the varied nature of the work, including both engineering and chemistry, makes it very pleasant and interesting.

As you probably know Larry Hart is not far from here, in Chicago, Ill., and I spent one evening with him in Indianapolis before I went home at Thanksgiving. I was intending to go up to Chicago to spend Christmas with him but he decided to go to his home in Dayton over the holiday, and so sidetracked me over there. I spent three days with him there and, believe me, I had a royal good time. I had a chance to see Larry's baby, "Fritz," and he certainly is about the best and healthiest little man I ever saw. Both Larry and his wife are as tickled as a dog with two tails and I surely don't blame them for being proud of the little fellow. I believe the youngster is planning to go to the Institute in 1930 and take a course in "acoustical engineering." There is no need for me to tell you that Larry is getting on wonderfully well in his new work in acoustics.

In closing, I suppose I ought not to omit telling you that the following item appeared in the Beverly paper about three weeks ago:

"George G. Pike announces the engagement of his daughter, Mildred Fausta, to Walter Emerson Brown of Atlantic avenue, City."

The announcement of Walt's engagement comes too late to

appear in our matrimonial section. Congratulations, Walter; here's to your joy and happiness!—We are pleased to have another of Charles A. South's (III) snappy letters. Read this and cheer up, you fellows who are lamenting hard times:

Alas, the dollar is a nimble sprite, but most beauteous withal! I have been pursuing her from place to place for I would wed with her. In fact, I fain would wed enough of her sisters, so that my harem might far outshine both in numbers, and silvery sheen, that famous one of King Solomon the wise. Had your letter reached me a week ago, I should have gladly written you, and filled out the address blank, but the dainty blue slip would have stayed in Arizona. As it happens, I have just become the proud father of a wee baby sum of the filthy lucre. The first, in fact, that has drifted down the current in my direction since the middle of August. Hence I return to you the blue slip plus my check for one dollar. Better send the check home quickly, for this cash has affected me like old wine, and if my check book outlasts my bank account, Heaven only knows what my address will be, or for how long.

I am located, at present, in a most delightful spot, high up in the Santa Catalina mountains. It is wilderness, indeed, but not the wilderness of burning sun and blazing cactus-studded desert, which one naturally associates with the name, Arizona. Far from it, the wilderness is one of mountain piled on mountain, of deep narrow gorges, of hurtling streams, of steep slopes of fine oak, climbing up to meet the pine, of pine rising to the jagged sky line, of slopes clothed with grass and flowers in spring and summer, but oft white with snow in winter. Nestling in a narrow, high walled valley, not far below the snow-smothered peaks, are two tiny adobe houses, and five weather-beaten tents. This is my abode, at present, nearly six thousand feet above the sea. As the crow flies, it is only about forty miles to the railroad, and Tucson, but travel is more conveniently pursued around, rather than over the mountains which nearly doubles the distance. To the post-office, it is only eighteen miles and those miles are long, and very rough. The automobile has not, and will not for sometime to come, surpass the humble burro as the best and most economical method of transportation in this immediate vicinity. They say this has been an unusually severe winter here, I hope I do not have to put in another like it for some time. From about the middle of December, it has rained or snowed at least three days a week. We had one rain in December that lasted for nine days, and gave us over 13 inches of precipitation. We use a wash tub to measure the precipitation in, and on two occasions we have had to dump it out to prevent overflow. This winter we have had, here at camp, over 24 inches of rain and snowfall (melted). When one stops to consider that Arizona's average rainfall is but 11 inches + per annum, you may judge we have had our full share of it during the last three months. At present I am acting, temporarily, in charge of a prospective mine. It is a large property, consisting of twenty-three claims. While the owner is in the East, in search of funds, I am here in search of more ore. I have one white man and four or five Mexicans, and between the work we get done, and praying for another bunch of grub to come in—for grub has been nearly as scarce as money—we manage to keep out of serious mischief.

If the saying "a short life and a merry one," has any converse, I sure ought to live to be a thousand. Have not left camp, seen a white female face, nor a drop of booze for over six months. One of the Mexicans has a wife here, that is the only woman I have laid eyes on for half a year.

It is a mighty pleasant life though, so free from such complexities as money, trains, street cars, theatres, women, etc., *ad infinitum*. Not having money, we have no expenses, and without expenses, alas! one's bad habits must take unto themselves wings.

To parody Ben. Franklin, it is a case of "Early to bed and early to rise makes us healthy, poor and very foolish, but withal quite happy."

—Joseph C. MacKinnon, VI, is in Boston temporarily, chasing the elusive "job." He notes:

E. W. Brewster, II, has termed fellows such as myself who are working for the firm "Sitmuch, Doolittle and Getnothing" "Social" engineers on account of our

[Secretary's note: More of Bill Brewster's wild hunches.]

great affability towards everyone who has a position. Personally, I disagree, for I believe we bear a closer resemblance (if the pangs of hunger have not gone too far) to efficiency engineers, as our main thought day and night is: 'Cut down maintenance charges, cut down maintenance charges!'

—"Mack" ought to write a book on "How to be cheerful though jobless."—In the way of a little gossip for Course I, we print the following taken from a letter of "Billiken" Daggett's, XI:

Speaking of '13 men, I have at last discovered the owner of Franklin Park, none other than "Heinie" Hauch, I, fat and funny as ever. He is now with the Public Service Commission and has passed through all stages of ups and downs. His last fall was from the aspiration of a beautiful Long Island maiden. Heinie says they are all alike and he is not going to put any faith in the best of them.

—We told you that long ago, Heinie.

The second of the informal dinners in Boston was held at the Crawford House on March 25, as announced on the cards. A private room was secured and the select gathering of Tech's finest class agreed that the only thing necessary to make these dinners famous throughout the land is to get more of the men together. "Hap" Peck couldn't come to this one on account of his approaching matrimonial venture, and Bill Mattson had some related excuse; but all the great statesmen will be on hand next time (Peck says he's coming even if he is a benedict), and it will be a real cheerful affair for all the lucky men who get there. If you're in Boston the last Thursday of the month don't miss a good feed and a good time. Just drop into the Crawford House, and if you don't see any '13ers ask for them. They'll be there strong after 6.30. Come and bring your friends.

1914

CHARLES PARKER FISKE, *Sec.*, 99 Aspen Avenue,
Auburndale, Mass.

ELMER E. DAWSON, JR., *Asst. Sec.*, 28 Washington Avenue,
Winthrop, Mass.

Two more hereby announce their intentions. Let us quote from the New London *Day* of February 19, 1915:

The engagement of C. Shepard Lee (III) to Miss Millicent Lucy Stone was announced at a bridge party and luncheon given by Mr. and Mrs. Frank C. Stone at their apartments in the Mohican hotel Thursday afternoon. Miss Stone is a graduate of Williams Memorial Institute and is now a student at Miss Wheelock's school for kindergarten teachers, in Boston. Mr. Lee is now taking a post-graduate course at the Institute and will leave in a few days to visit the copper mining districts of the West.

Cards were also received from E. M. Boyd, II, announcing the engagement of Miss Mildred M. Sears to him.

But the surprise came in the marriage announcement by Mr. and Mrs. George Washington Landers of their daughter Lillian Lucile to Thomas Jefferson Duffield on February the twentieth. (Not the first time that George Washington and Thomas Jefferson have had dealings together.) Congratulations, men! We all wish you great happiness and unbounded good luck. Our matrimonial department is steadily improving but it has not yet reached our fondest expectations. Spring is here and summer coming, however, and these two factors ought to do much in providing news of this nature.

Now for the letters. C. J. Callahan, XI, says:

I am now in the big city working for the Public Service Commission on the new subway work. I left the John T. Scully Company to come here the first of the year. There are about fifteen of the 1914 civils here on the job, and we are going to have a big get together and dinner at the Tech Club early in March.

A letter from L. Standish Hall, I, reads as follows:

My copy of the TECH REVIEW just arrived and I am going to try and answer your appeal for news. Right after graduation I came to Washington to take my position in the United States Office of Public Roads. After sticking around the city about a month surveying for a road over to Alexandria, Va., I was sent out to Yosemite National Park, California. When I arrived there there were over a thousand people in the valley, as the place is quite a summer resort. There was a dance every night and one could have a pretty good time. I could not commence to describe the tremendous beauty of the valley with its towering cliffs and wonderful waterfalls. The survey out there was about the toughest job I will ever be on. The line ran over rock slides, where not even a trail was located. To give some idea what it was like, it took nearly three months to run transit line, profile, and cross sections over a little more than six miles. I took some great hikes and horse-back rides too. I walked seventy miles in three days over to the Mariposa Grove of Big Trees, and another day I rode to Lake Tenaya, about thirty-five miles. I met three old Tech men in the valley, Mr. Matthes of the Geological Survey, Mr. Barnes of Chicago, and another whose name I can't remember. During the Christmas week I went down to San Francisco looked over the Exposition grounds and saw the town from the Barbary Coast to Golden Gate Park. Just after I got back to Yosemite and had settled down to stay there the rest of the winter I was ordered back to Washington, so I have been here working around the laboratories since the middle of January. The Pacific Coast is a great country and I would like to get back there again, only I would prefer a more civilized portion. There were seventy-five people in Yosemite when I left, counting the Indians and rough necks.

Dave Sutherland, II, writes from Franklin, Pa., that he is now assistant superintendent of the plant. He says he is busier than ever, what with five boiler tests in three weeks, and all sorts of general development and construction work.

"Les" Snow, I, is still in Boston and offers the following information:

"Kirk" McFarlin, I, was in town and stayed with me for a week early in February. He came via Williamstown and returned to New Jersey via the same place and Vassar. He came up for a rest and rested while here in true Roosevelt style, with a most amazing display of energy. Through Bannister, who is now at Tech, I learn that Porter Alexander, I, is meeting with wonderful success out west in the contracting business.

"Buck" Dorrance sends the following:

A friend of mine just came in who wished instruction in the use of a slide rule. He was graduated from the department of civil engineering of a well known college and informed me that a couple of fellows in his class had rules, but the majority did not bother with them. Billy Sunday, the evangelist, is actively stirring up the Quaker City and I am planning to hear him tomorrow night. Thousands are turned away from the doors of the auditorium each night, but as I am to take the place of a member of the choir I hope to get in the tabernacle, as it is called.

(Congratulations on your new vocation, Buck. We all have a mental picture of you in Billy Sunday's choir.)

Today I am busy packing up my possessions as I expect to leave this palatial residence in a few days. I expect to be in our wicked, though interesting metropolis, New York, for several months, spending my time in the large hotel kitchens, educating myself to be a real honest-to-goodness chef. After a few months I can probably give the secretary valuable information regarding where to eat and also where *not* to eat in New York.

The *Staten Islander* of December 19, 1914, prints as follows:

Mr. Robert C. Doremus (II) has received the appointment of assistant engineer with the New York State Commission on Ventilation. He will conduct experiments in the research laboratory of the commission, which is located at the City College, Manhattan.

The following communication came to the secretary just before his article went to publication, from whence we know not where. But whoever it was we thank him for his genuine effort and hope for other instalments later. He says it should not shock the sensibilities of the most prudish. We'll leave it to you to decide.

The undersigned does not think a heluvalot of the 1914 class secretaries. There's Fiske, striving to change kopecs into bits at Kidder Peabody's with a fifteen place log table (honestly he can't even change his shirt these days). But Dawson is absolutely hopeless—he left the home of Budweiser for the home of Beans to dally with wool, mistaking said wool for the upper works of a seidel, it is rumored. In accord with the opinion above stated, the undersigned—having clomb the ladder to success, and consequently, bulging with time, money, Bock, and nonchalance—took it upon himself to personally investigate various members of the class. Starting at the "Stute"—where all his troubles started—he found a goodly representation of our glorious fellow workers: Bull Owen and Jerry Blakely are there, administering physics to the younger element—that's no joke either. The other embryo professors could not be interviewed as they were all going shopping—at Wirths. However, Dinny Chatfield is back at the old stand. He hopes to be the blushing recipient of a master's degree in military science, for he adds that little indescribable touch of *Plumb de Café* to the drill ball, and really fellows, he wears a sword just as neatly as a slide rule. Freddy Hurlbutt pays a lot of attention to the big finishing school, albeit he is still attending exercises at all of the approved finishing schools. Also, it is rumored that Johnnie Huff is about, but you can't prove anything by me. The premier attraction still on the stony incline is Dean Fales. We always think of two gems from the classics in contemplating him, anent:—"How doth the busy little bee improve each shining hour," and something about "Worked like a Trojan." Dean is busier than a jelly in a whirlpool, and is quite right when he agrees with Casey Wells, who said that the beaver was made the M. I. T. mascot because his tail was always dragging. As Arlo Bates might say—"This ain't such a big world," so Casey Wells comes next, e'en tho' he sweateth in a far western smelter. Casey finds that other things besides the climate are dry out there and fain would he swap last Saturday night's fat ace-pot for a chance to once more quench his thirst at that oasis on the corner of Boylston and Exeter Streets—not the drug store, Oscar. Leaping to Jersey (Mark Twain's flea could beat that)

we find Buck Dorrance mingling with the soup business—ox-tail I believe. Near bull—what? Speaking of animals, one Crittenden and one Doremus are heat and venting on the New York commission, or “rawther,” on the guinea pigs furnished by said commission—for test purposes only. This proves that even New Yorkers have a limit. Quoting from an esteemed contemporary—McLeod is acting errand boy at Brown and Sharpes. He runs to the saloons to get the men’s growlers filled. Incidentally, he has joined the army (not the legion of honor). You know a uniform does set his figure off so! Boggs Morrison reports that he would give the brim of last season’s straw hat (the crown has disappeared) to be back at the “Stute” riding on the swan boats with all the old daredevil spirit. He is working awfully hard—is as busy as a bull’s tail in fly time. He insists that Professor Havens lectures were of great benefit to him, now that he is in the gas business. Ralph Salisbury (his characters all wore tights) is disguised as an architect in Noo York City. Those Course IV (or is it Course VI?) loafers do need gallons of temperament—but it comes high in that county. Itch Y. Chin, our most celebrated Scandinavian member said that A. H. Waitt reminded him of the “latest” Ford story. He must have been consciously spoofing me, for the latest one I heard did not make me laugh. A goodly number of the class was present at the reunion held at the Wellesley Glee Club concert, Copley-Plaza, Boston, America. As it is now half past drink time I’ll tell you the rest later. If you get there first, mine will be a Martini—or a Krupp.

—Bird Duff, I, is still with the Lake Erie and Ohio River Canal Board in Meadville, Pa. He says:

I am having a bully good time, although quite a busy one, for I am handling all the hydraulic field work, such as stream measuring and gage setting for some thirty odd stations. It certainly is a healthy life taking current meter readings this kind of weather when the Price meter freezes solid the instant you take it from the water. The proposed canal runs from Pittsburgh to a point on Lake Erie near Ashtabula, Ohio, and passes through Youngstown and Warren, Ohio. I saw Karns at the Pittsburgh Convention.

P. McCullough, VI, sends the following from India. You needn’t hesitate about reading it, for it has passed the censor:

We had great weather coming over and the sea was like a mill pond. Neither Simmons nor I were troubled with seasickness. There were only thirty-nine first-class passengers crossing the Atlantic on the *Baltic*, so there was not much doing. We got wireless news until the day before we reached Queenstown when they were required to take down the wireless.

There was not much excitement in London either. I expected that the war would stir up a fuss there but the only evidence we saw that a war was going on was the drilling of recruits in the parks. We went to several shows while we were there and went around quite a bit. Then we spent a day and two nights going up to Dundee and back.

We couldn’t go across France on account of the war but there was a lively crowd on the boat so we didn’t mind the extra sail. We stopped at Gibraltar but only British subjects were allowed on shore. They let us off at Malta and Port Said, however, and we had a chance to see those places. We also stopped at Suez and Aden, but only for coal. It was pretty rough going through the Red Sea but that was about the only uncomfortable part of the journey. Coming across from Bombay to Calcutta took about two days and we had a great chance to see the country. Everything was looking its best, being at the end of the rainy season, and India is a pretty country. There is a lot to see, and Simmons thinks it is a great place. We are having great weather here now. It is quite cool at night and warm in the daytime.

There are six of us living together—four Americans, Mr. Spence, and his nephew, Bert Spence, and we have some pretty good times. The mill is a very interesting place and there is a lot to learn there. They have started on an extension and I have to be there most of the time. Everything is done by hand and the natives work

pretty well if they are watched. It is a great inconvenience not knowing the language because quite often it is absolutely necessary to swear. I am picking up a few words though and get along fairly well now.

We don't get much but war news here and that is the same every day. I heard that the Braves won the world's championship, which must have surprised everybody. They deserved it after the fight they put up.

What is doing at Tech? I have hardly heard of the place since I left America, so I would be glad of any news. If you see any of the fellows of 1914 tell them to drop me a line once in awhile,—“Lest auld acquaintance be forgot.”

We thank you, Percy, for your contribution and our last word is that we hope they don't crown you with a turban, put a gun in your hands and tell you your time has come. Let's have more letters like this, you men who are a thousand miles from home or nowhere.—“Al” Devine, II, is with the same people and says he is extremely busy working on a new scheme for the measurement of steam flow in pipes by the injection of carbon dioxide into the steam.—C. J. Callahan, XI, has moved his headquarters to New York City. He recently organized a small party there and tells of it in his letter:

We held our little party at the Tech Club on Thursday evening, March 4. Those present were the fellows who are here working on the subway, as we couldn't get in touch with fellows in other courses in time for the affair. We will, however, hold a class dinner in the Tech club early in April and we want every man in or around New York there. The dinner was a grand success. Out of seventeen men who are working here on the subway we had 100 per cent attendance, which we believe is a record for the class. Well, we seventeen sat down to a chicken dinner at 7 o'clock and waded through six courses interspersed with funny stories by Van Etten. After dessert, “Pa” Coburn and Mr. Spaulding of the club spoke. Then Frank Ahern sang the song that dedicated the 1912 summer camp. It is “Fiddle-dee-dee.” It made as big a hit as ever, and all the older club members joined us in singing the school songs, after which we had the freedom of the club. Pool, billiards, bridge, etc., were played by the different fellows. A big attraction was a game of indoor baseball in which a team captained by “Soap” Larkin met defeat by Van Etten's team, 14 to 4. After the game we broke up with the singing of the Stein Song and a regular M. I. T. The older members of the club said we had provided the liveliest evening that they had enjoyed for years and it is at their suggestion that we are going to meet there again in April. We will surely show them one big night then if we can get all the New York fellows to come out as well as the subway bunch have done.

Those present were: Merry, Ahern, Borden, May, Murphy, Osborne, Dunn, Turner, Sauer, Russell, Houck, Solomon, Brown, Larkin and Van Etten of Course I and Daggett and myself of Course XI.

That certainly must have been some party and anyone would be foolish to pass up the April meeting who could be there. This is surely the right spirit and the right sort of pep and we hope men in other cities will follow Callahan's example in getting the bunch started. The secretaries will be only too glad to furnish lists of men in the territories desired.—Walt Keith, X, writes from Akron where he is still working for the Goodyear Rubber company:

I am still an inhabitant of rubber town surrounded by tires but as yet have nothing to put them on.

(Every rubber-tired vehicle does not have a motor, anyway, Walt.)

I expected I should be almost ready to *retire* from business by this time, but am not quite ready yet.

L. W. Currier, III, is teaching the metallurgical courses and all but one of the geological courses at the University of Idaho, in Moscow.—A. E. G. Collins, of the same course, is reported as being at the front in the war zone.—E. C. Hadley, VI, is working in the mechanical laboratory of the New York Navy Yard.—Bill Price, X, writes from Cornell, Wisconsin, where he is employed by the Cornell Wood Products Company, the following:

Am doing what is known as "general investigation work, which at the present time consists of putting on a pair of overalls, carrying a "full dinner" pail and working just like a regular laborer. I am trying to make a careful and detailed study of the paper business, and expect to work through all departments in the same way. At the present time I am working in what is known as the "grinder room," eleven hours each day one week, and thirteen hours each night for the next week—some hours!

"Del" Hiller has gone to New York on sanitary work. He had an offer to go to England on the same kind of work for the Red Cross, but considered this side of the water more pleasant under the existing conditions.—"Joe" Fish is in central station work in New York City. He went to Panama and back as an oiler on a United Fruit steamer some time ago but we haven't heard how he liked it.—Ralph D. ("Arlo") Bates is doing sanitary research work connected with the sewerage disposal system of Brockton, Mass.—"Jimmie" White, VI, is now teaching lower mathematics and elementary engineering subjects in a school for the employees of the Edison Company in Detroit. He is known by his confrères as the "professor."—Frank Somerley is principal of a grammar school in Agawam, near Springfield, Mass.

The dinner of March 13 was held at the Oxford as was the fall dinner and while the number present was small the affair was a great success largely because of the easy, informal atmosphere that prevailed. Twenty-one men answered the call and the management provided a room with a single table that would just accommodate the number present. The cheerful anecdote furnished most of the entertainment and everything, from the latest Ford story up and down, was brought forth by Ross Dickson, *et al.* A very interesting account of the Musical Club's trip was given by Ross Dickson in which he mentioned meeting several four-teeners in Montclair, Philadelphia, Pittsburgh, Rochester and Springfield. As there were plenty of cigars the users of the weed sat around until well into the evening talking of the old days and of the Pops which is the next big date on the class calendar.

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